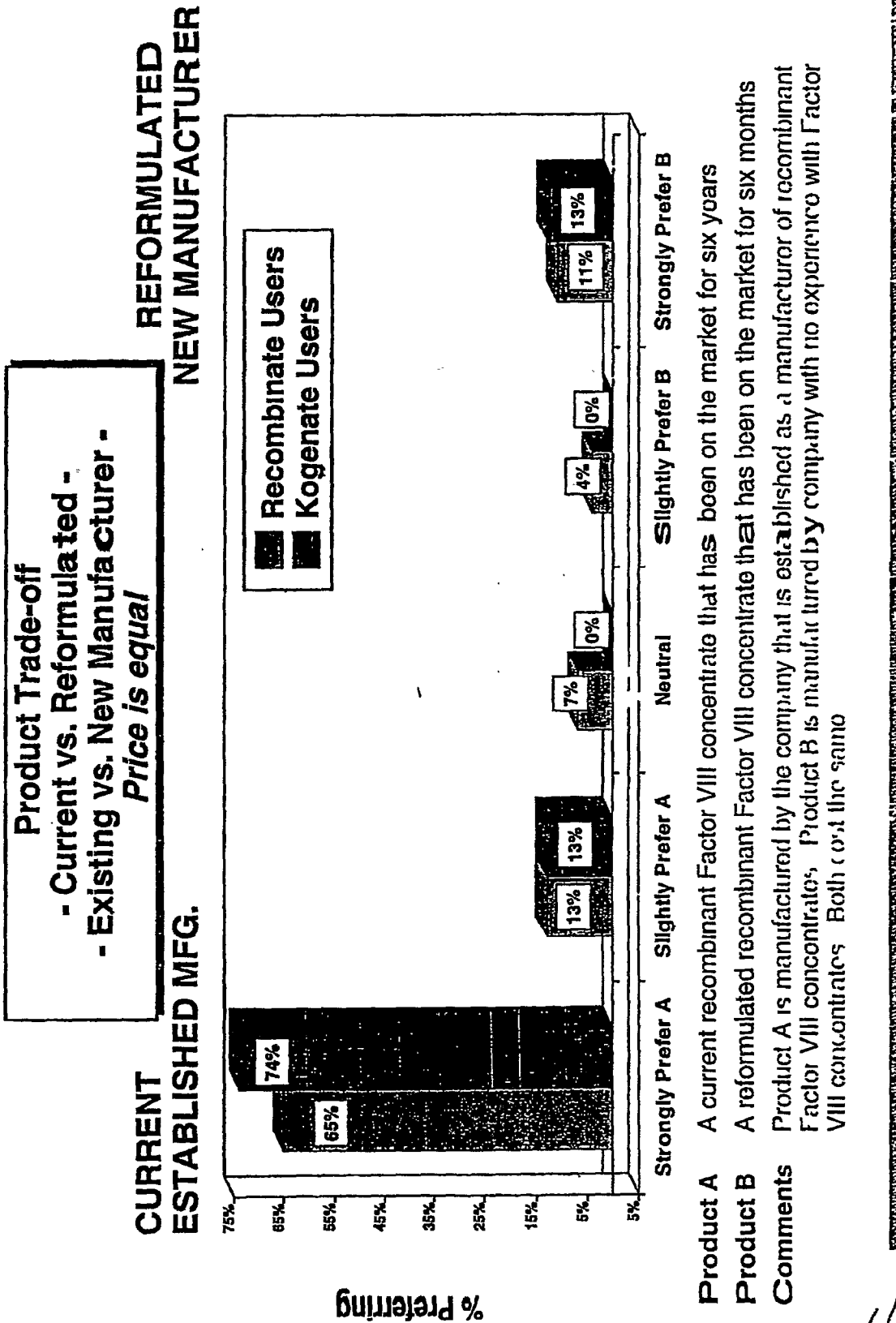


Patients also demonstrate a strong preference for a current product from an existing manufacturer over a reformulated product from a new manufacturer.

U.S. Final

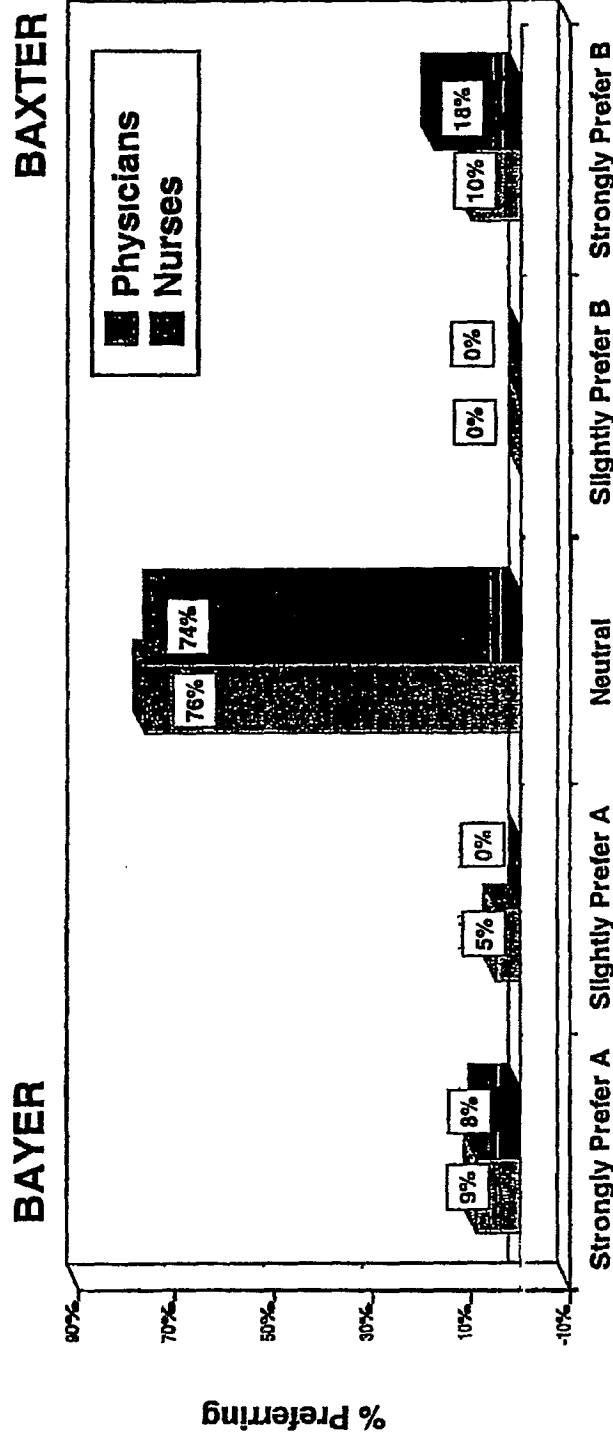


MARII C

Typically, physicians and nurses are neutral in their preference for a reformulated product from Bayer or Baxter.

U.S. Final

Patient Product Trade-off
- Reformulated Bayer vs. Reformulated Baxter -
Price is equal



Product A: A reformulated recombinant concentrate sold by Bayer
Product B: A reformulated recombinant concentrate sold by Baxter
Comments: Price is equal

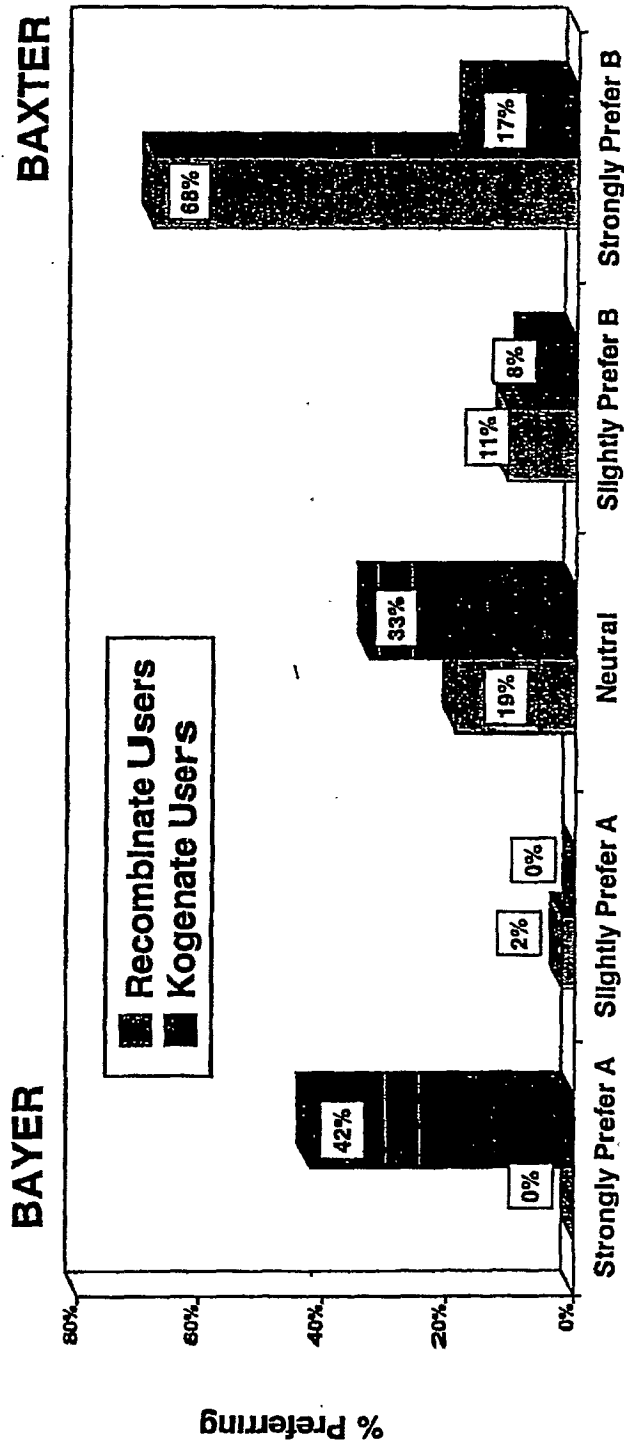


MARTEC

Recombinant users demonstrate much stronger brand loyalty than do Kogenate users.

U.S. Final

Patient Product Trade-off
- Reformulated Bayer vs. Reformulated Baxter -
Price is equal



Product A A reformulated recombinant concentrate sold by Bayer
Product B- A reformulated recombinant concentrate sold by Baxter
Comments Pico is equal



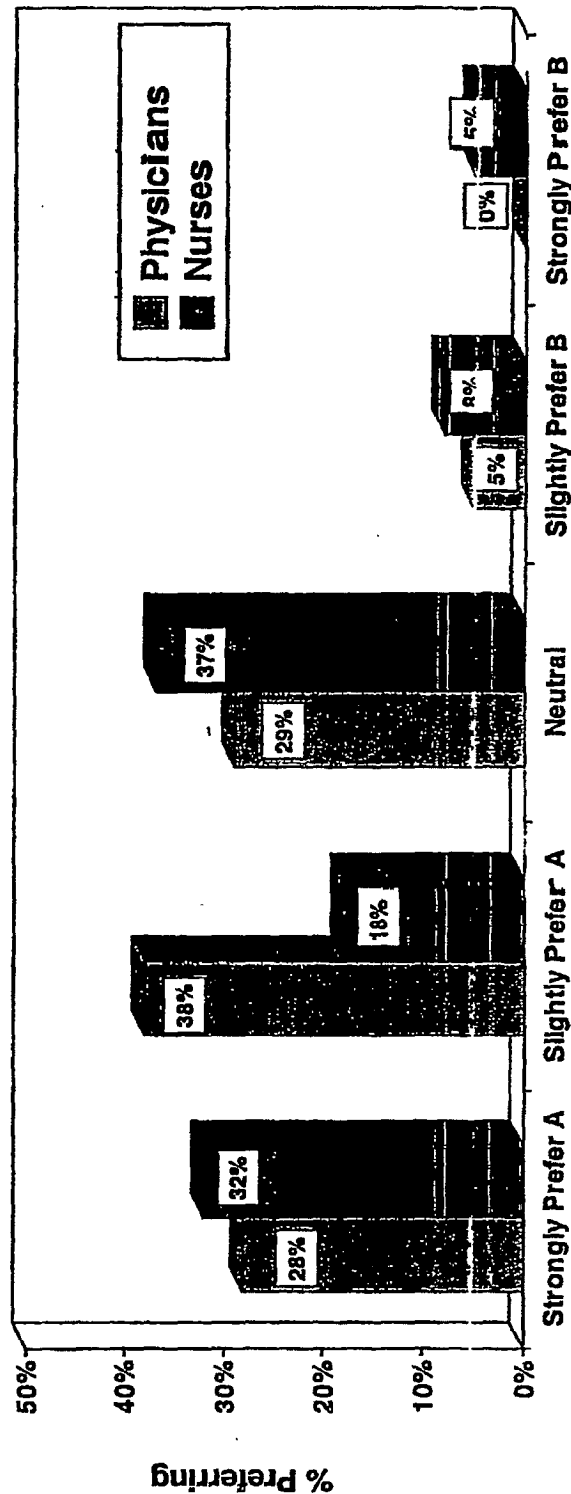
Over 60% of physicians and 50% of nurses express a preference for a reformulated product from Baxter over one from a new player to this market like Genetics Institute.

U.S. Final

Product Trade-off
 - Reformulated Baxter vs. Reformulated from New -
 Price is equal

GENETICS INSTITUTE

BAXTER



Product A: A reformulated recombinant concentrate sold by Baxter

Product B: A reformulated recombinant concentrate sold by a new player to this market, such as Genetics Institute

Comments: Price is equal



MARTEC

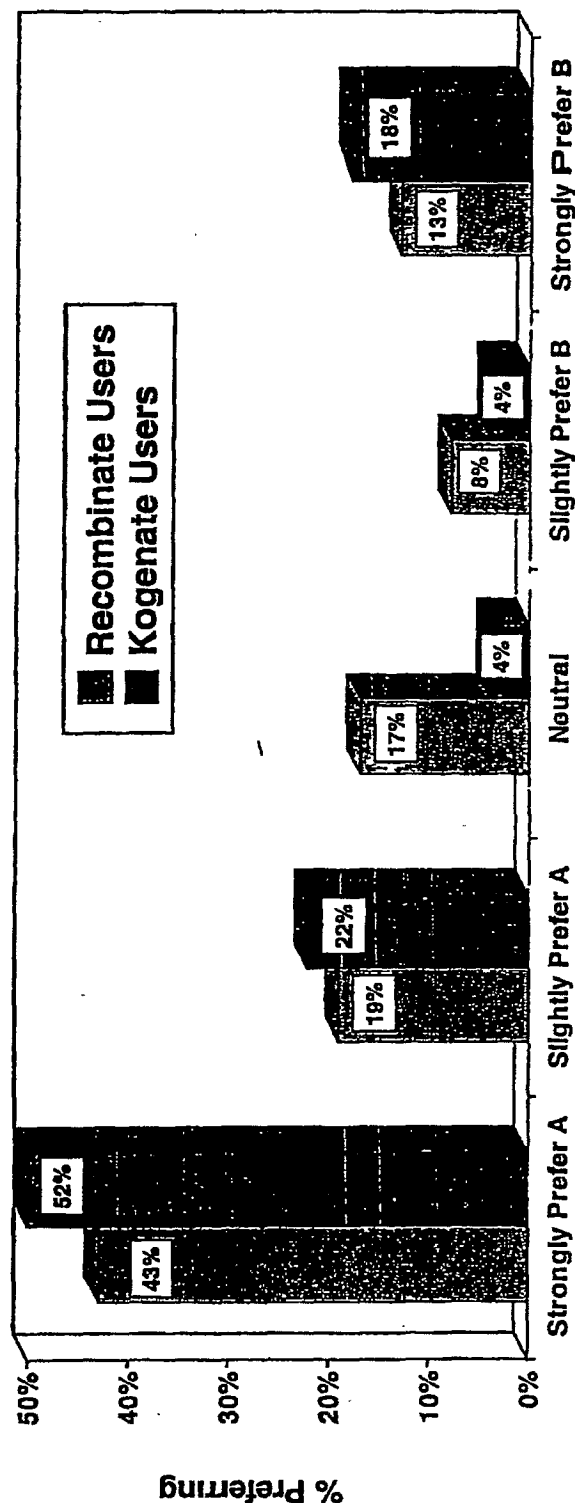
Over 60% of Recombinate users and 74% of Kogenate users express a preference for a reformulated product from Baxter over one from a new player to this market like Genetics Institute.

U.S. Final

Product Trade-off
- Reformulated Baxter vs. Reformulated from New -
Price is equal

GENETICS INSTITUTE

BAXTER



Product A A reformulated recombinant concentrate sold by Baxter

Product B A reformulated recombinant concentrate sold by a new player to this market, such as Genetics Institute

Comments Price is equal



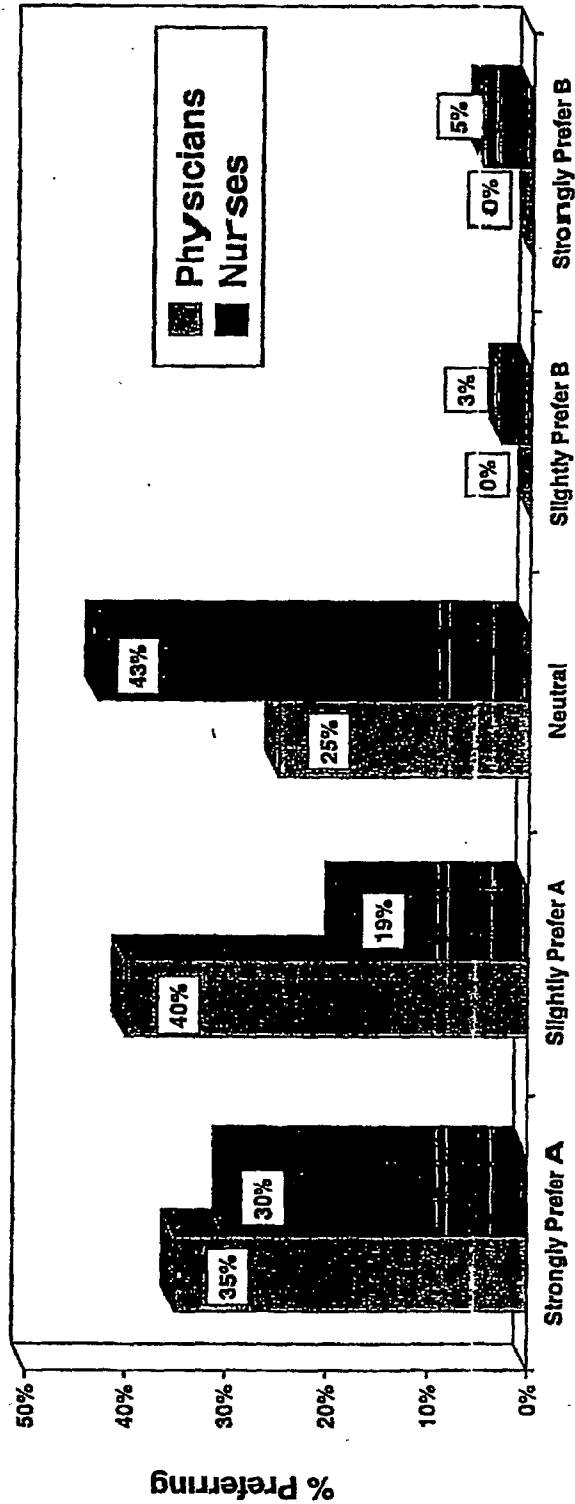
As is the case with Baxter, most professional respondents express a preference for a reformulated product from Bayer over one from a new player to this market like Genetics Institute.

U.S. Final

Product Trade-off
- Reformulated from Bayer vs. Reformulated from New -
Price is equal

BAYER

GENETICS INSTITUTE



Product A A reformulated recombinant concentrate sold by Bayer

Product B A reformulated recombinant concentrate sold by a new player to this market, such as Genetics Institute

Comments: Price is equal



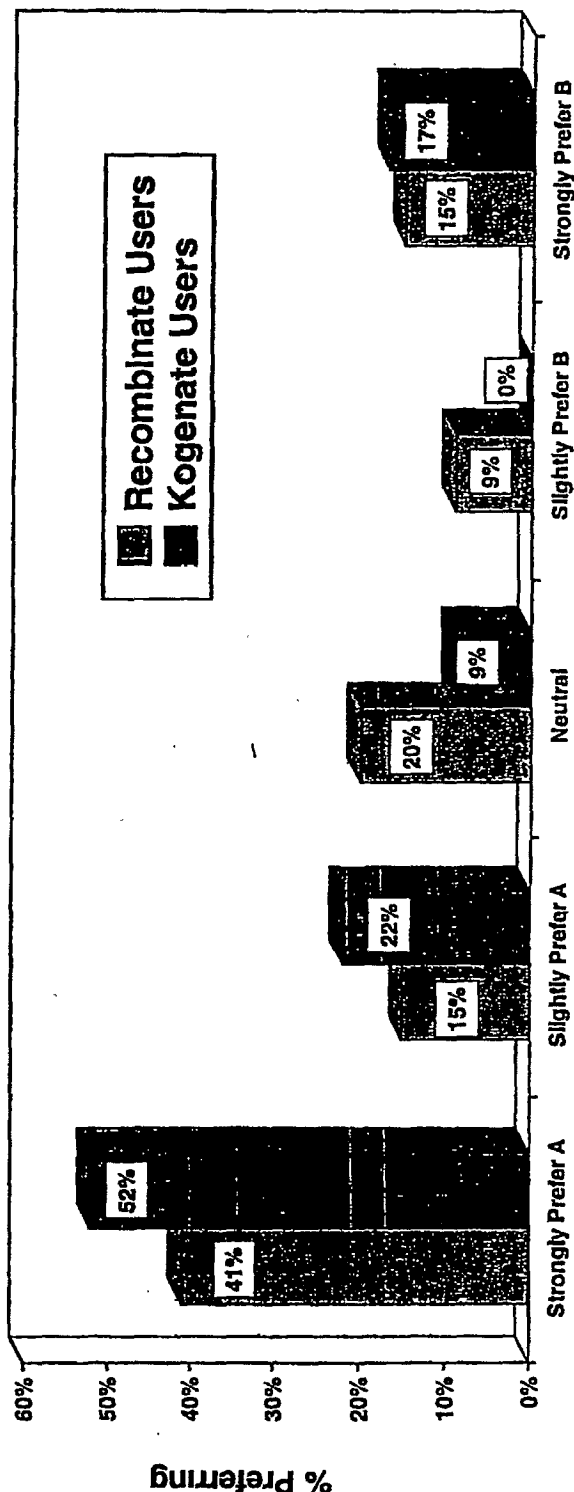
As is the case with Baxter, most patients express a preference for a reformulated product from Bayer over one from a new player to this market like Genetics Institute.

U.S. Final

Product Trade-off
- Reformulated from Bayer vs. Reformulated from New -
Price is equal

BAYER

GENETICS INSTITUTE



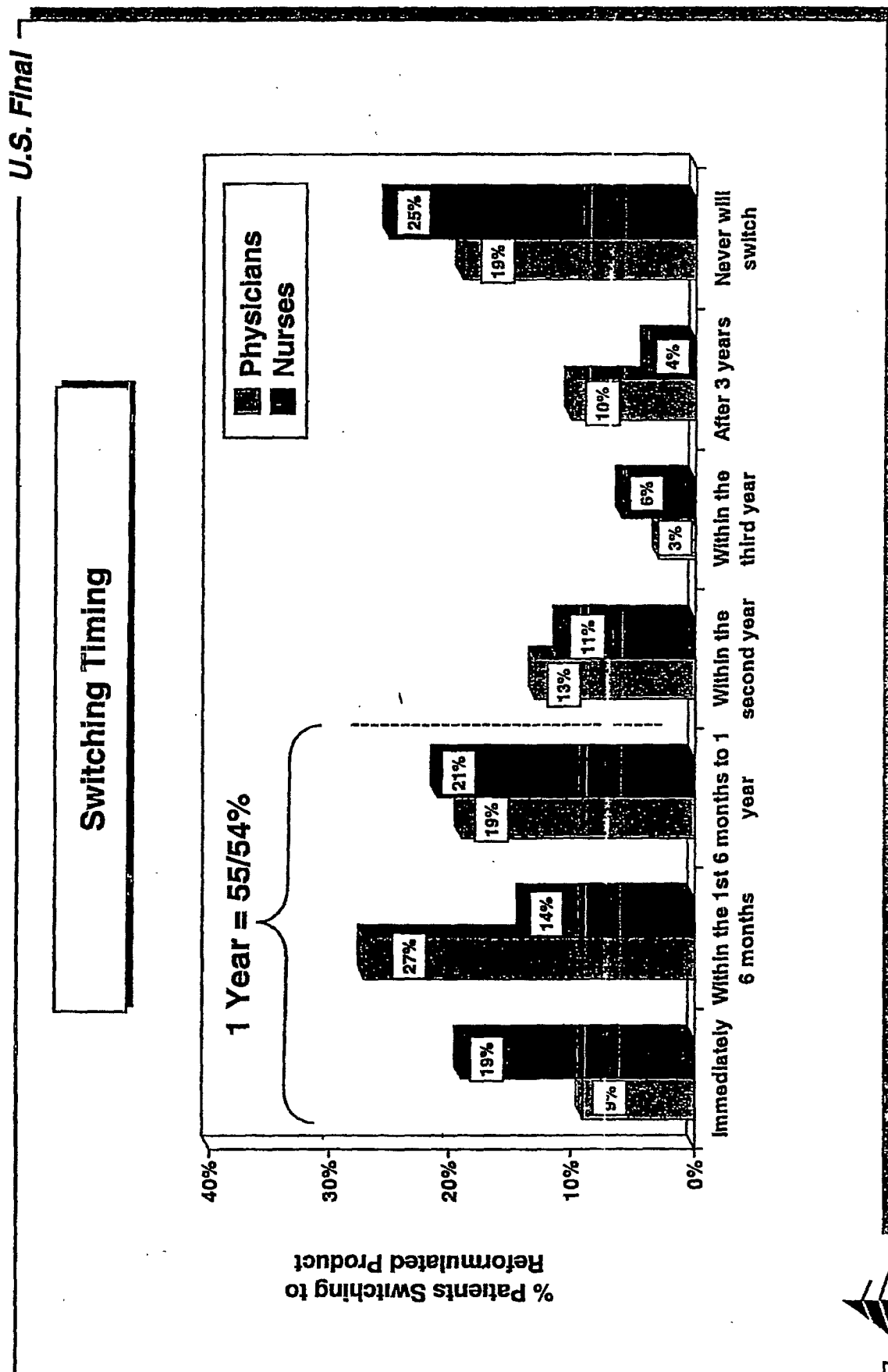
Product A: A reformulated recombinant concentrate sold by Bayer

Product B: A reformulated recombinant concentrate sold by a new player to this market, such as Genetics Institute

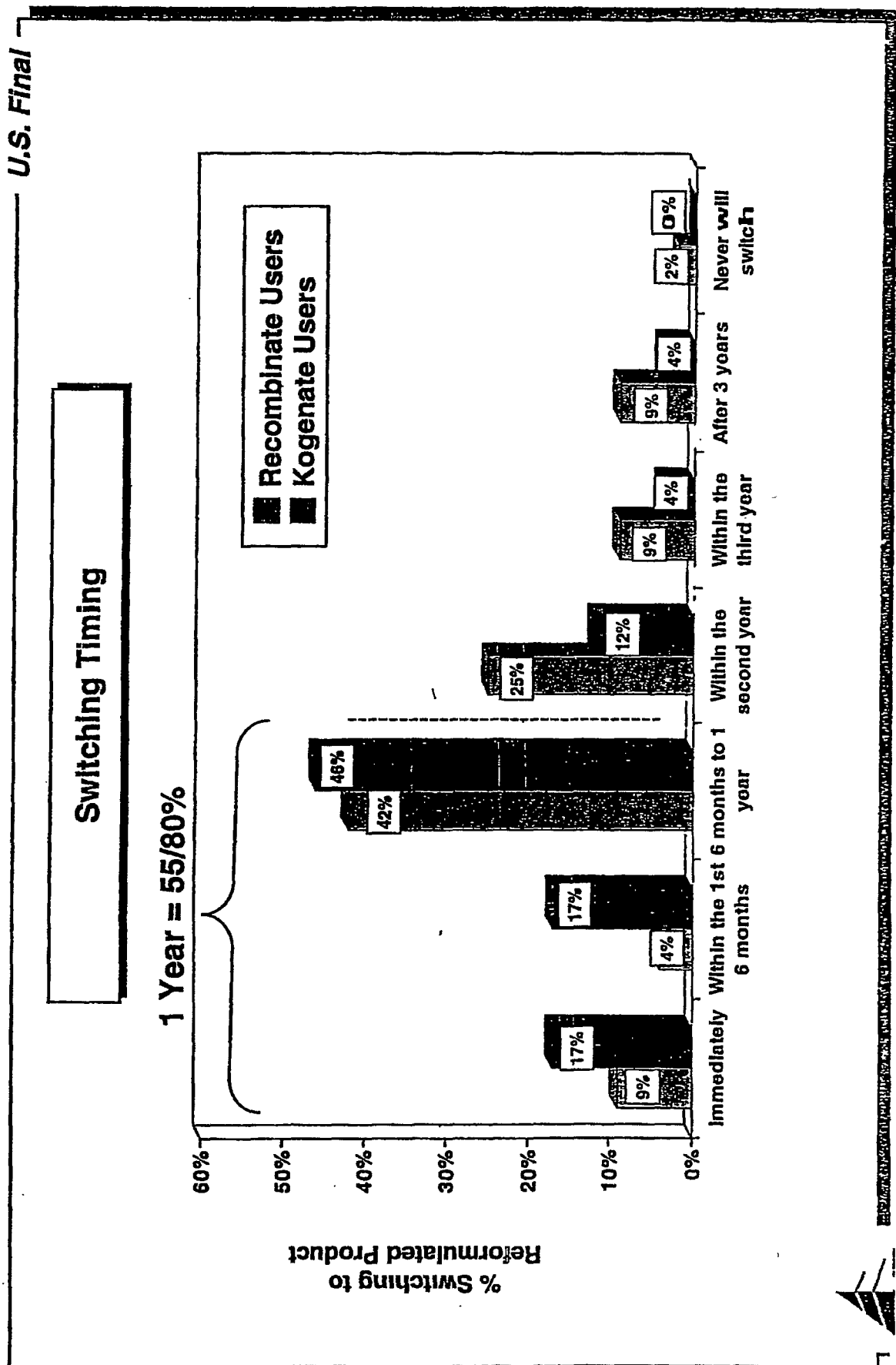
Comments: Price is equal



Physicians and nurses believe that over half of their patients will switch to a reformulated product within the first year of its market introduction.



Kogenate users are more likely to switch to a new product within one year.

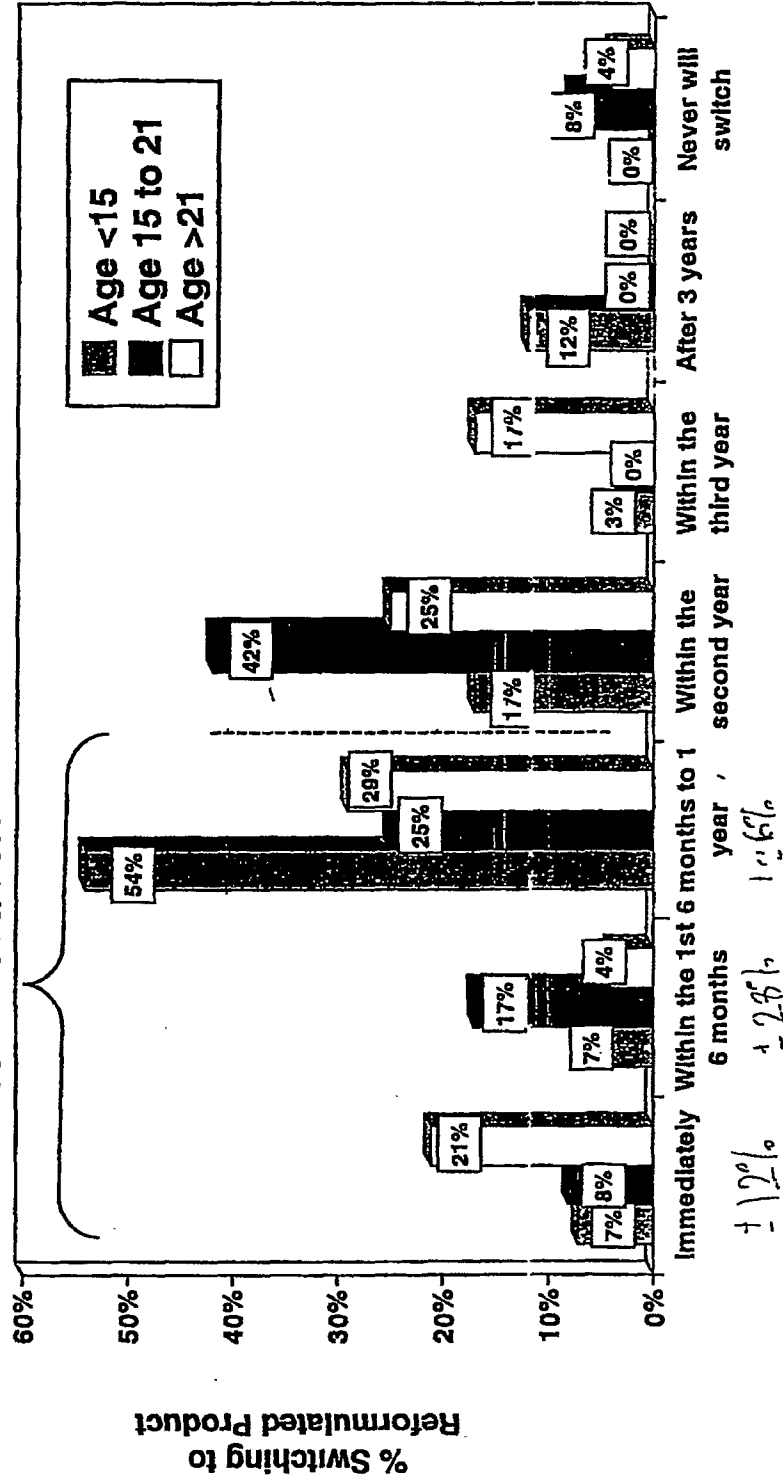


Older patients are more likely to switch immediately. Patients under 15 will most likely wait between 6 months and one year to switch.

U.S. Final

Switching Timing

1 Year = 68/50/54%

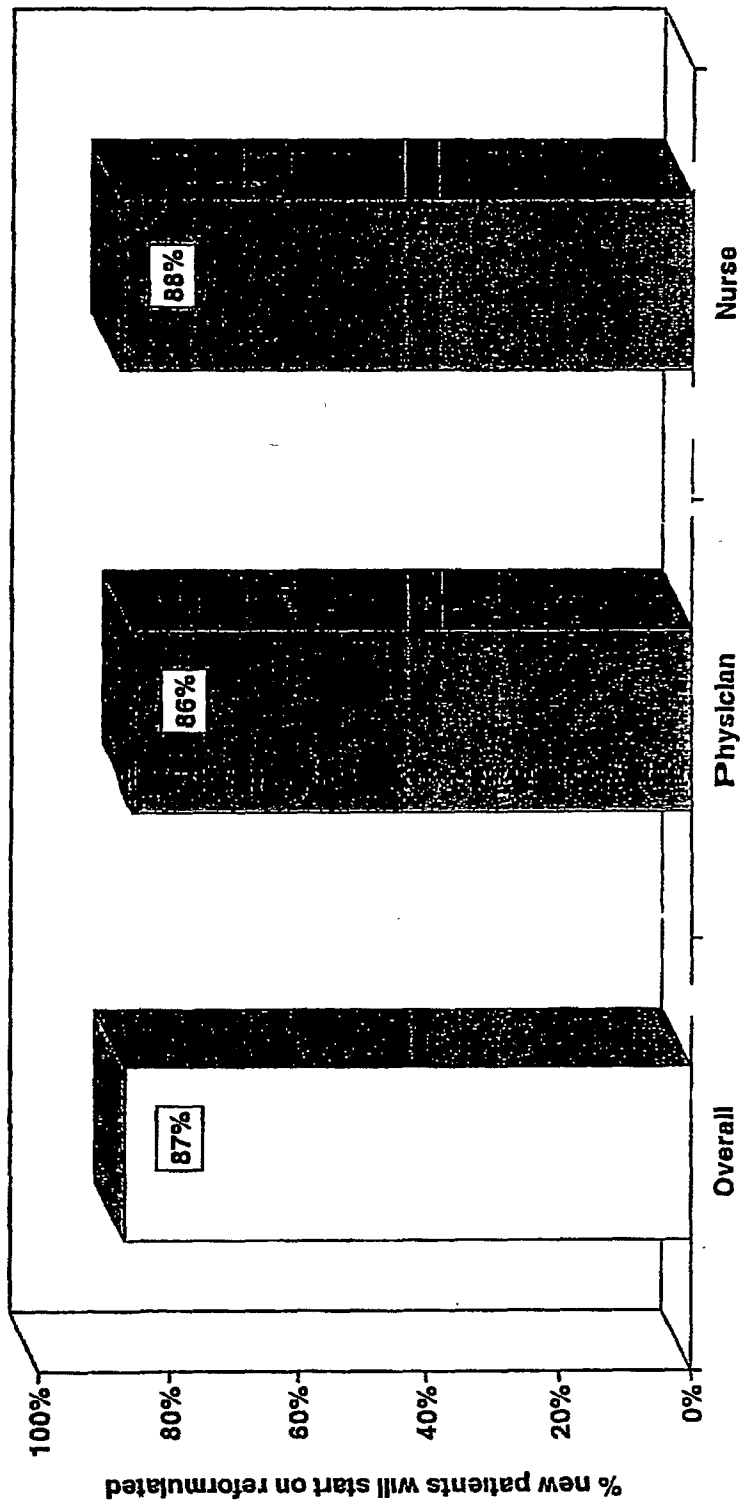


MARTEC

Both physicians and nurses indicate that nearly 90% of their newly diagnosed patients will start on a reformulated Factor VIII product once it becomes available.

U.S. Final

% Newly Diagnosed on Reformulated



The great majority of patients receive their Factor VIII at home.

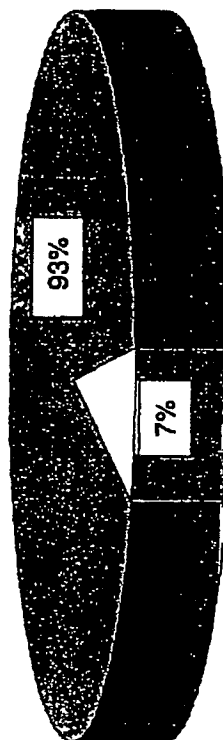
U.S. Final

Product Delivery/Pick-up

Professionals
- Estimation -

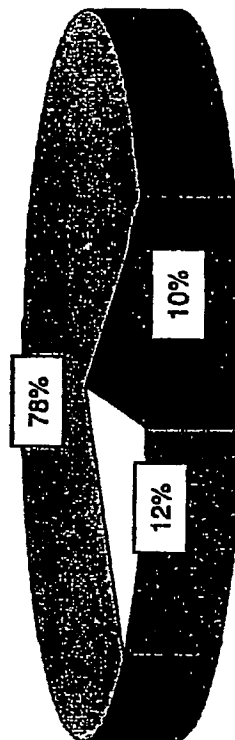
Patients

Delivered to Home
via Home Health Service



- Other
- HTC
 - Health Department

Delivered to Home
via Home Health Service

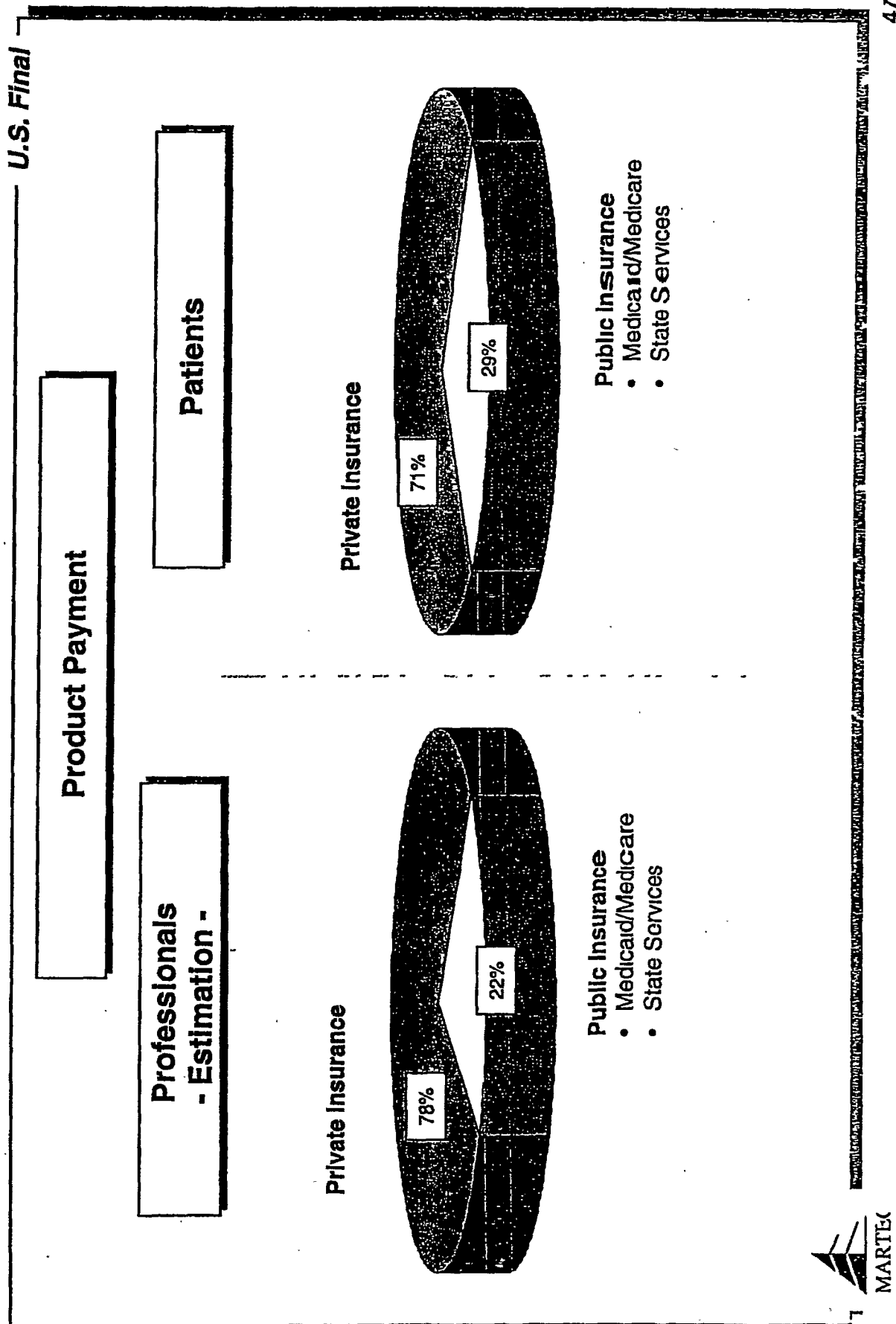


- Other
- Hospital
 - Doctor office/clinic
 - Pharmacy
 - Health Department
- Hemophilia
Treatment Center

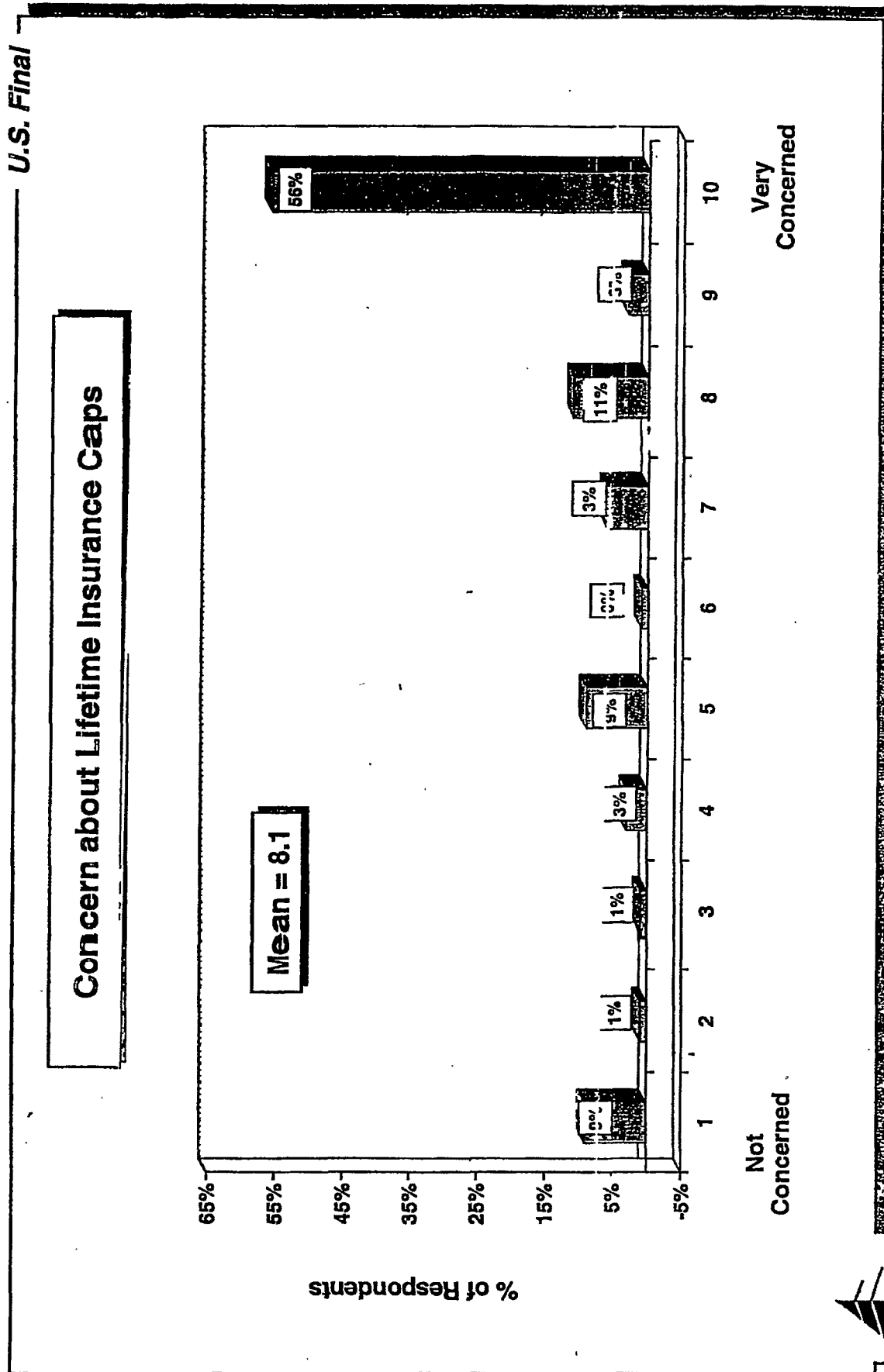


MARTEC

Approximately 75% of patients use private insurance to pay for their hemophilia treatment.



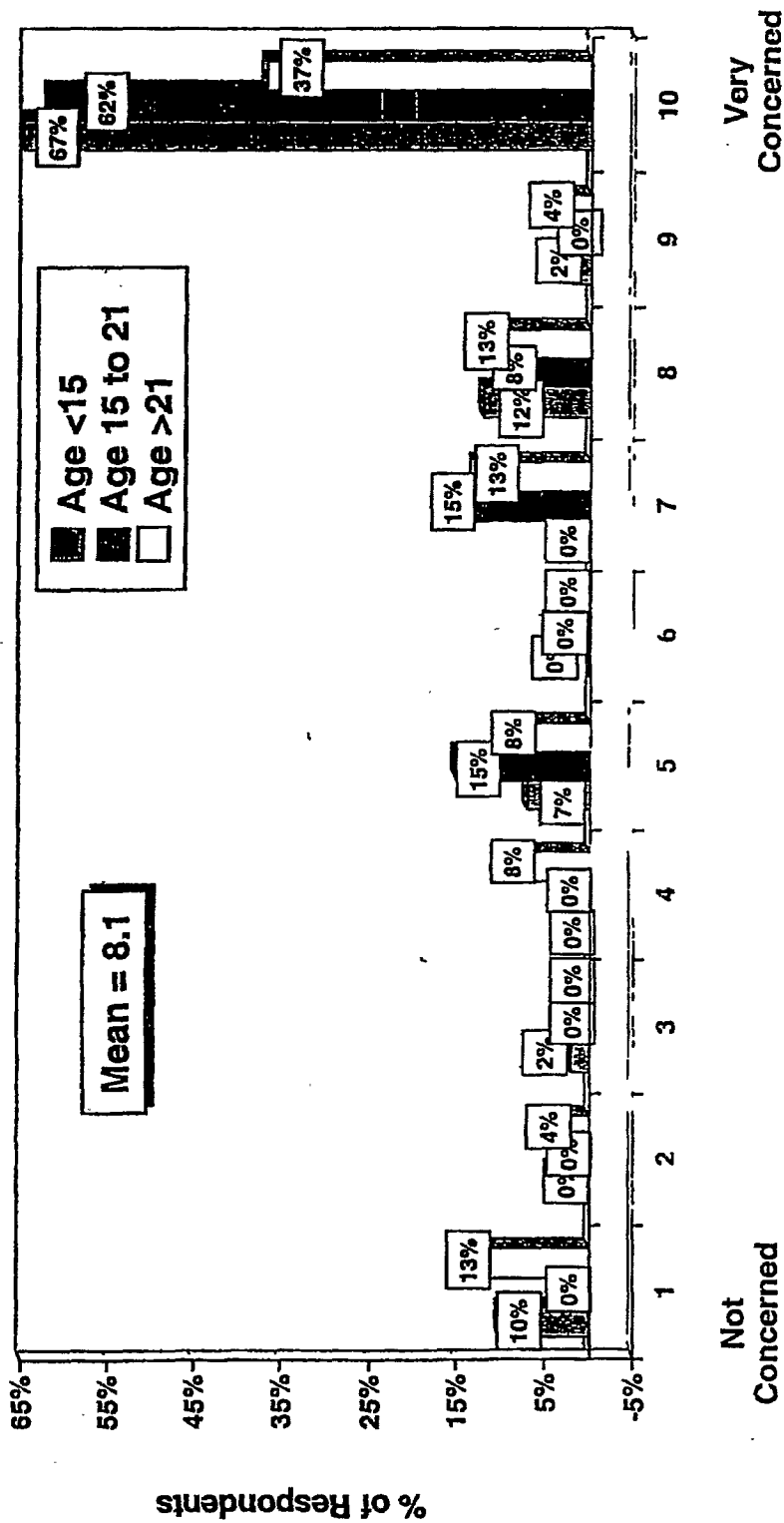
Seventy percent of patients are "highly concerned" about exceeding their lifetime insurance caps...



However, the older the patient the less the concern.

U.S. Final

Concern about Lifetime Insurance Caps



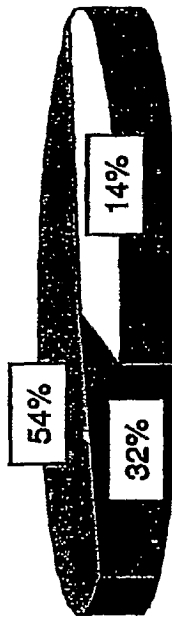
Pricing is not clearly understood by the market. However, all respondents feel current pricing of recombinant products is very high.

U.S. Final

Pricing

Physicians

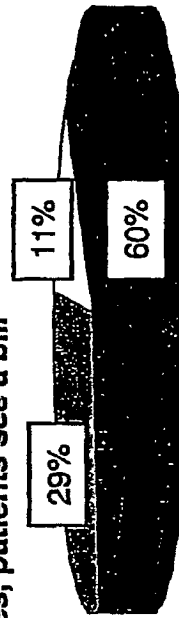
Yes, patients see a bill



No, patients see no bill

Nurses

Yes, patients see a bill



No, patients see no bill

Estimated Pricing/Unit

| | Patients | Doctors | Nurses |
|-------------|---------------|---------------|---------------|
| Recombinate | \$1 05 44% | \$.86 24% | \$.98 35% |
| Don't know | | | |
| Kogenate | \$.99 33% | \$.90 27% | \$.97 43% |
| Don't know | | | |
| Bioclone | \$.83 67% | \$.73 55% | \$.96 54% |
| Don't know | | | |
| Helexate | \$1 09 33% | \$.90 60% | \$.95 77% |
| Don't know | | | |

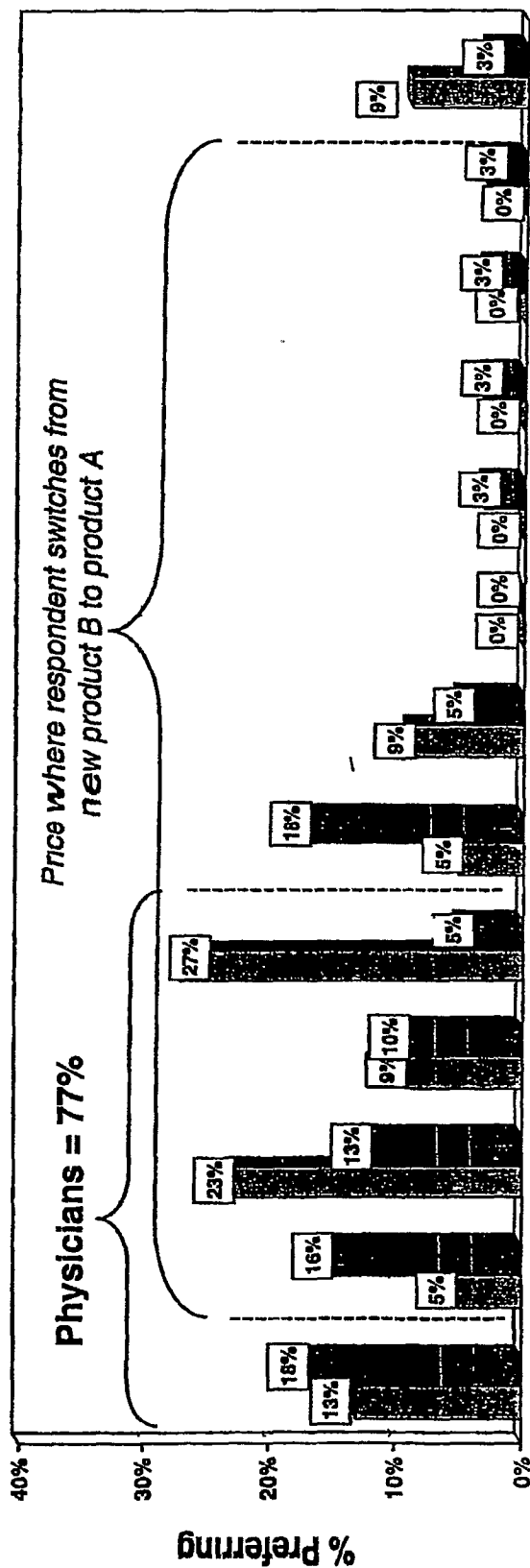


MARTEC

Nearly 80% of physicians will choose a current product if the price premium for the reformulated one exceeds 15%. Nurses demonstrate less price sensitivity.

U.S. Final

Pricing Sensitivity



Physicians
Nurses

Product A A current recombinant product

Product B A reformulated recombinant product

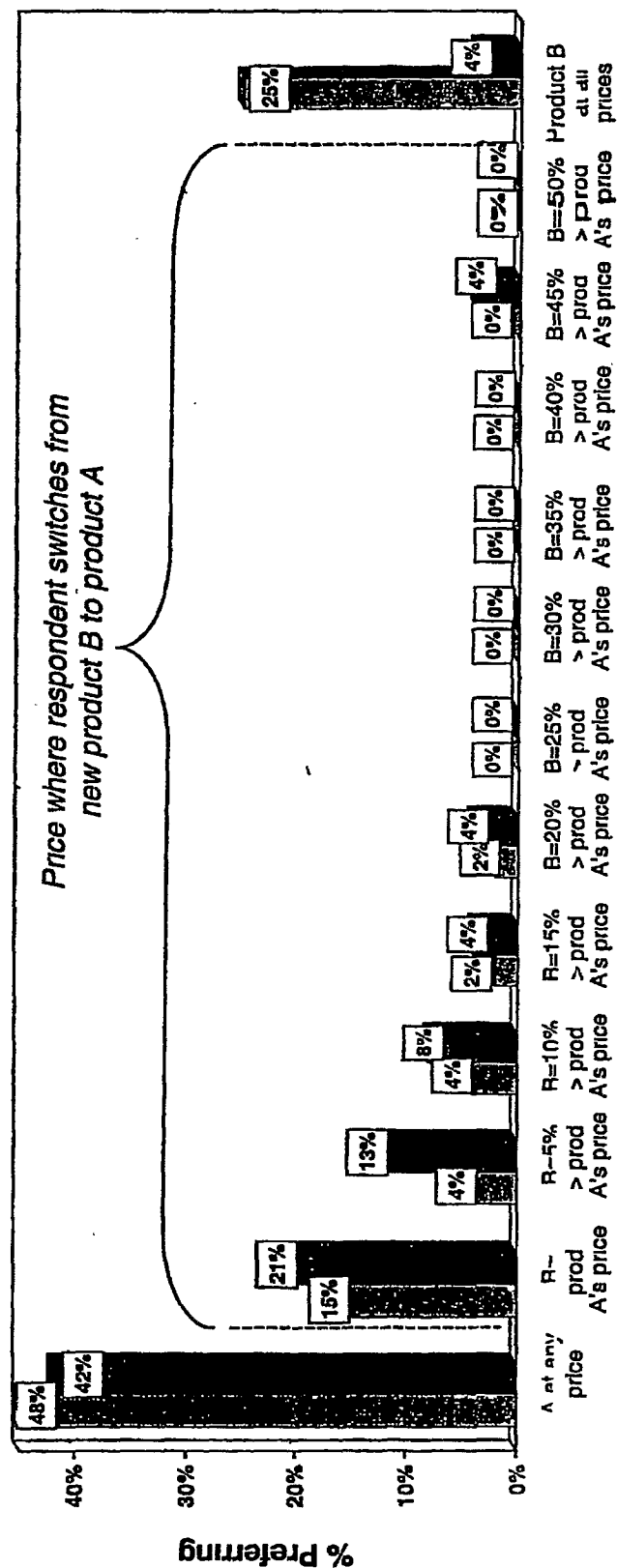
Comments Brand is the same Product A today's price/unit Price of Product B increase at 5% intervals, from below A's, price to more than 150% of A's, price



Patients demonstrate little price sensitivity as most choose either the current or reformulated product regardless of price.

U.S. Final

Pricing Sensitivity



Recombinate Users
Kogenate Users

Product A A current recombinant product

Product B A reformulated recombinant product

Comments: Brand is the same Product A = today's price/unit Price of Product B increase at 5% intervals from below A's price to more than 150% of A's price



MARTEC

When the safety benefits of the new products are not well understood, respondents generally choose to stay with experience.

U.S. Final

Pricing Sensitivity Comments

Professional Comments

"With no information about the reformulated products, I would stay with the current ones "

"There are no problems with our current products that would justify a premium of 10% or more "

"Some of our patients spend \$50,000 a year on their Factor VIII, another 10% would mean an additional \$5,000 "

"For patients using private insurance, a 15% premium will cap out their insurance too quickly "

Patient Comments

"If the new product is safer, then cost does not matter "

"I want the safest product, regardless of the cost "

"If a new product came out with no experience and it cost less, I would be very skeptical of it "

"If I have experience with my current product and the new one is not cheaper, why would I switch?"

"A 15% increase in cost would max our insurance too quickly "



MARTIC

Agenda

Objectives and
Methodology

U.S. Findings

European Findings

Summary of Findings

Conclusions and
Recommendations



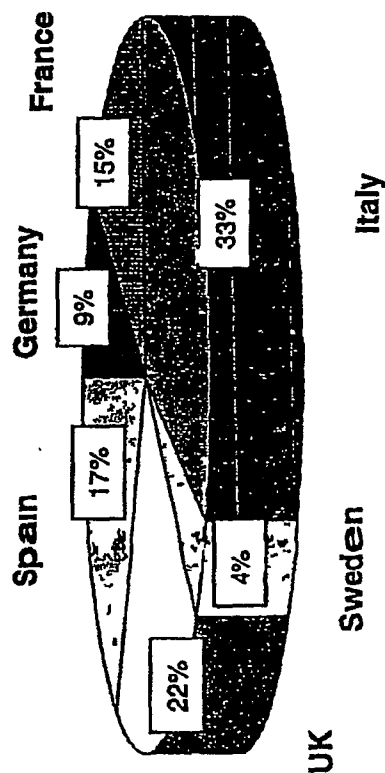
MARTEC

Of the 300 interviews completed worldwide, a total of 105 Phase II interviews were completed in seven European countries.

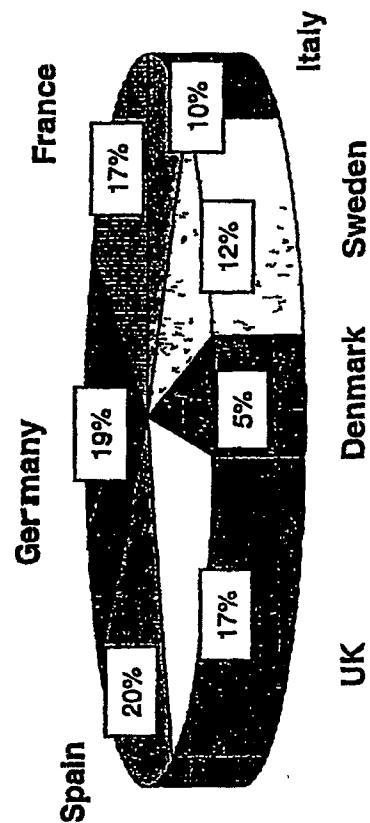
European Final

Respondents By Country

Physicians

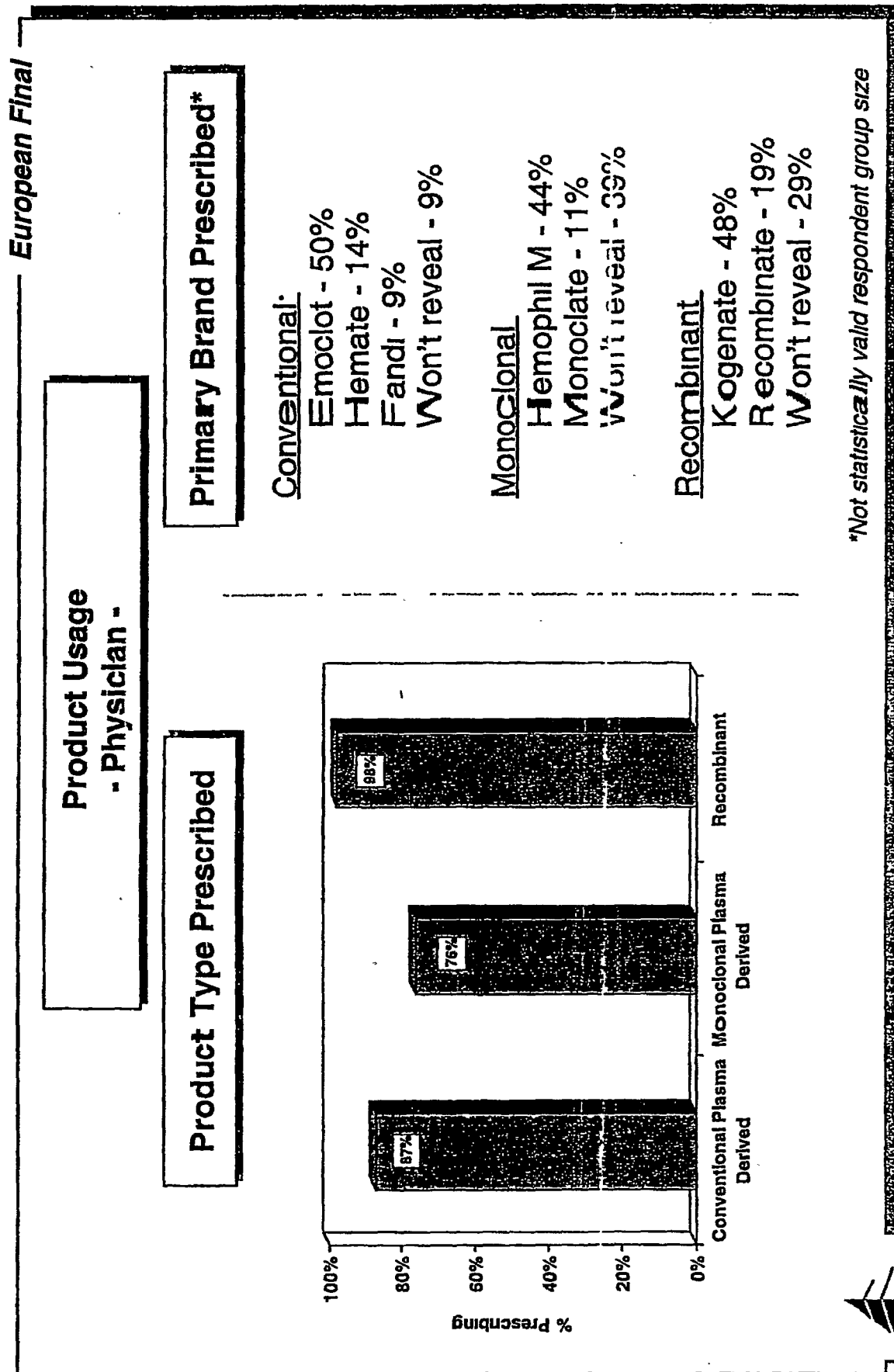


Patients



MARILC

Nearly every physician is prescribing recombinant products to some of their patients.



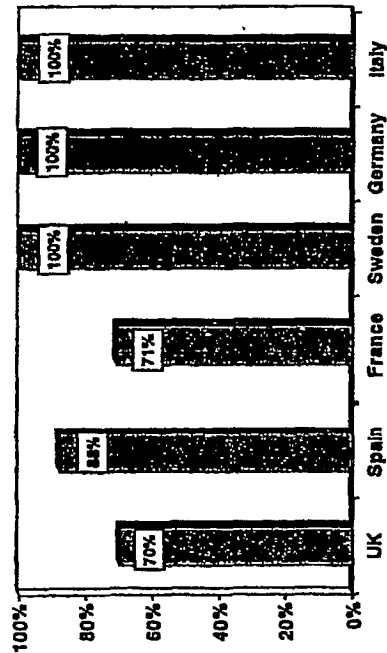
MARTEC

Spain is the only country with physicians reporting less use of recombinant Factor VIII products than plasma derived products.

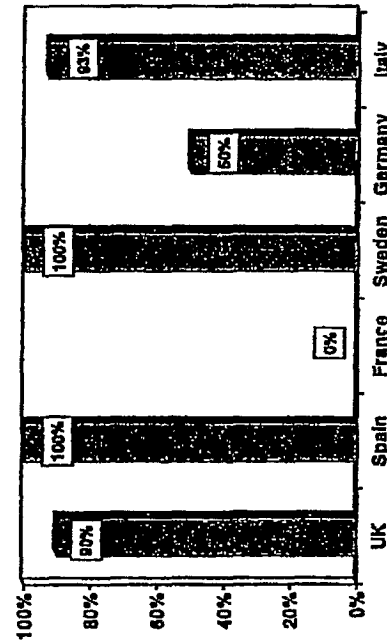
European Final

Product's Prescribed - By Country

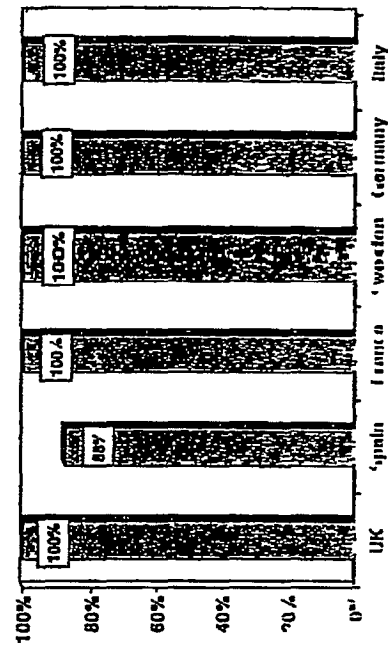
Conventional Plasma



Monoclonal Plasma



Recombinant



MARTL

Just under 50% of European physicians would talk openly about brand use.

European Final

**Product Brand Prescribed
- By Country -**

| Country | Conventional Plasma Derived | Monoclonal Plasma Derived | Recombinant |
|---------|---|------------------------------|--|
| UK | 1 Alphanate – 50% 2 Replenate – 50% | 1 Monoclate – 100% | 1 Kogenate – 100% |
| Spain | 1 Fandl – 67% 2 Helixate – 33% | 1 Hemophil M – 100% | 1 Kogenate – 67% 2 Recombinate – 33% |
| Sweden | | 1 Octonativ – 100% | |
| Germany | <i>Would Not Reveal</i> | | |
| Italy | 1 Emoclot – 73% 2 Hemate – 20% 3 Kriobulin – 7% | 1 Hemophil M – 100% | 1 Kogenate – 60% 2 Recombinate – 30% 3 Elixate – 10% |

n = 20

n = 11

n = 15

**Not statistically valid respondent group size*



MARTEC

In this sample, more patients use Recombinate than any other product. Ninety-one percent of respondents have switched products at least one time.

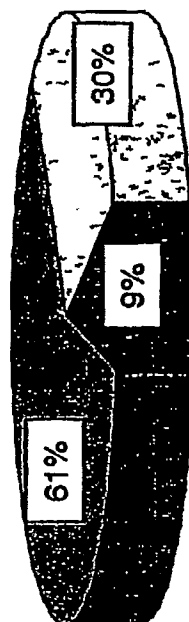
European Final

Product Usage
- Patients -

Current Products

Previous Products

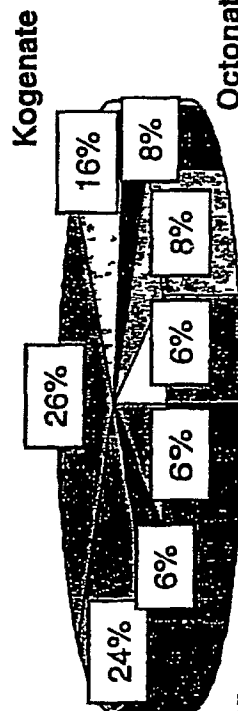
Recombinant



Conventional Plasma

Monoclonal Plasma

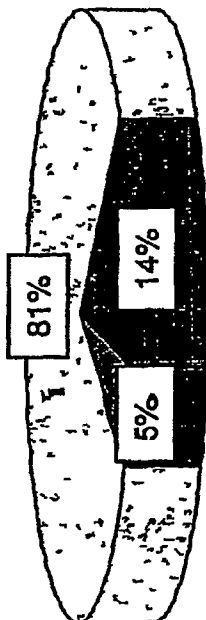
Recombinant



Other

Berlate Emoclot Alphamate Don't Know

Conventional Plasma



Recombinant Monoclonal Plasma

Monoclate - P 11%
 Octonativ 9%
 Berlate 9%
 Don't know name 9%
 Hemophil M 7%
 Replenate 7%
 Koate - HP 5%
 Cryoprecipitate 5%
 Recombinate 5%
 Kogenate 5%
 Never switched 9%

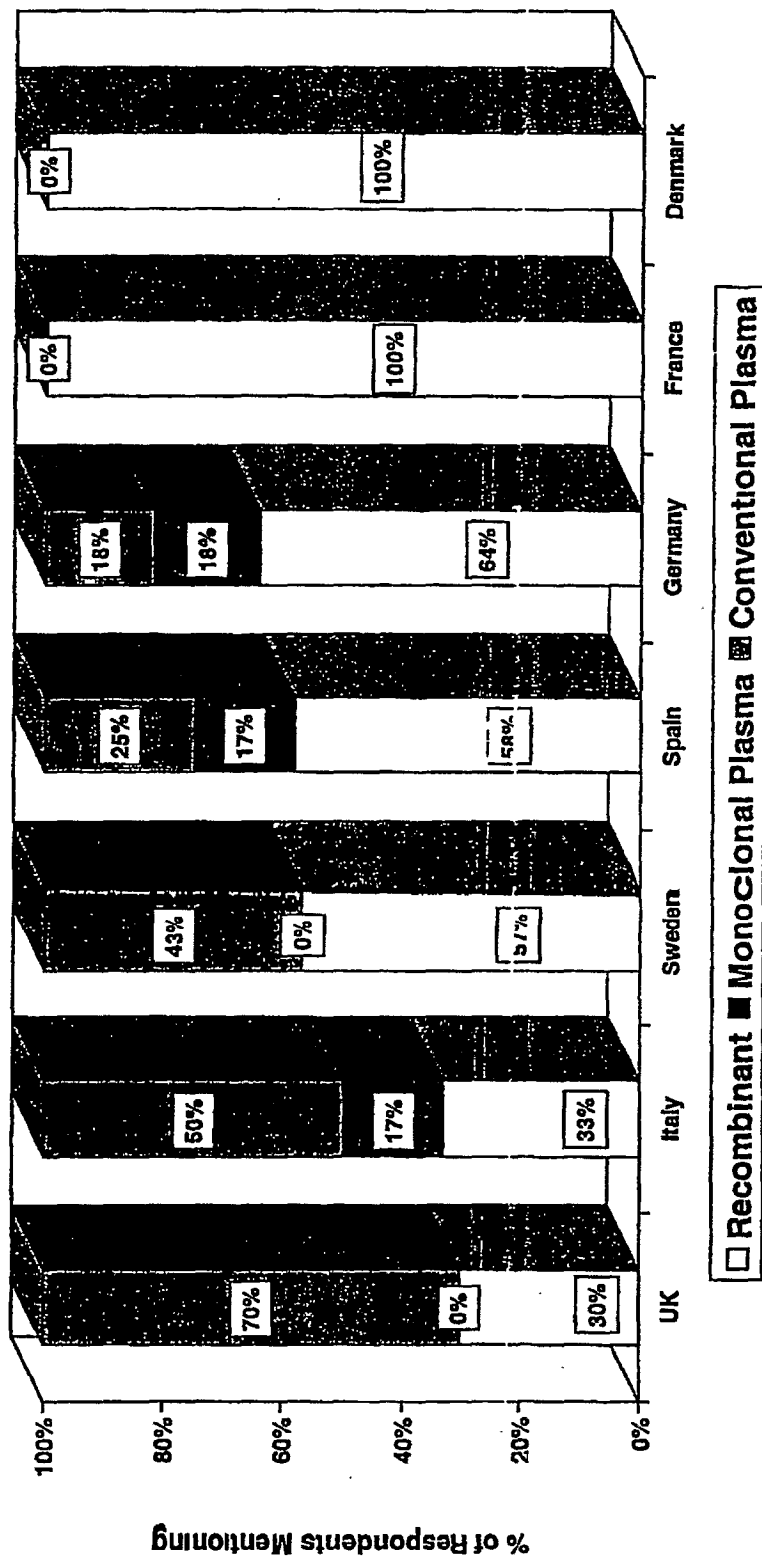


MARIL

Where patient populations in most countries have moved to using all or mostly recombinant products, there are still a large percentage of conventional plasma users in the UK and Italy.

European Final

FVIII Replacement Usage By Country - Patients -



MARTEC

60
GH000896

The promise of improved *product safety* was the number one reason for switching products. Doctors were the largest influencers in a patient's decision to switch.

European Firnal

Reasons for Past Switching - Patients -

Past Switching Influencers - Patients -

Safer product - less exposure

| | | | |
|----------------------------|-----|-----------------------------|-----|
| <i>to human protein</i> | 72% | <i>Doctor</i> | 65% |
| Doctor recommendation | 28% | Other patients | 22% |
| Availability | 20% | Own research | 17% |
| Adverse side effects | 6% | Hemophilia Society | 13% |
| Developed viral infections | 6% | Hemophilia Treatment Center | 9% |
| Developed inhibitor | 2% | Hospital | 9% |
| Unit dosage size | 2% | Nurse | 4% |
| Price | 2% | | |
| Product half life | 2% | | |
| Manufacturer reputation | 2% | | |

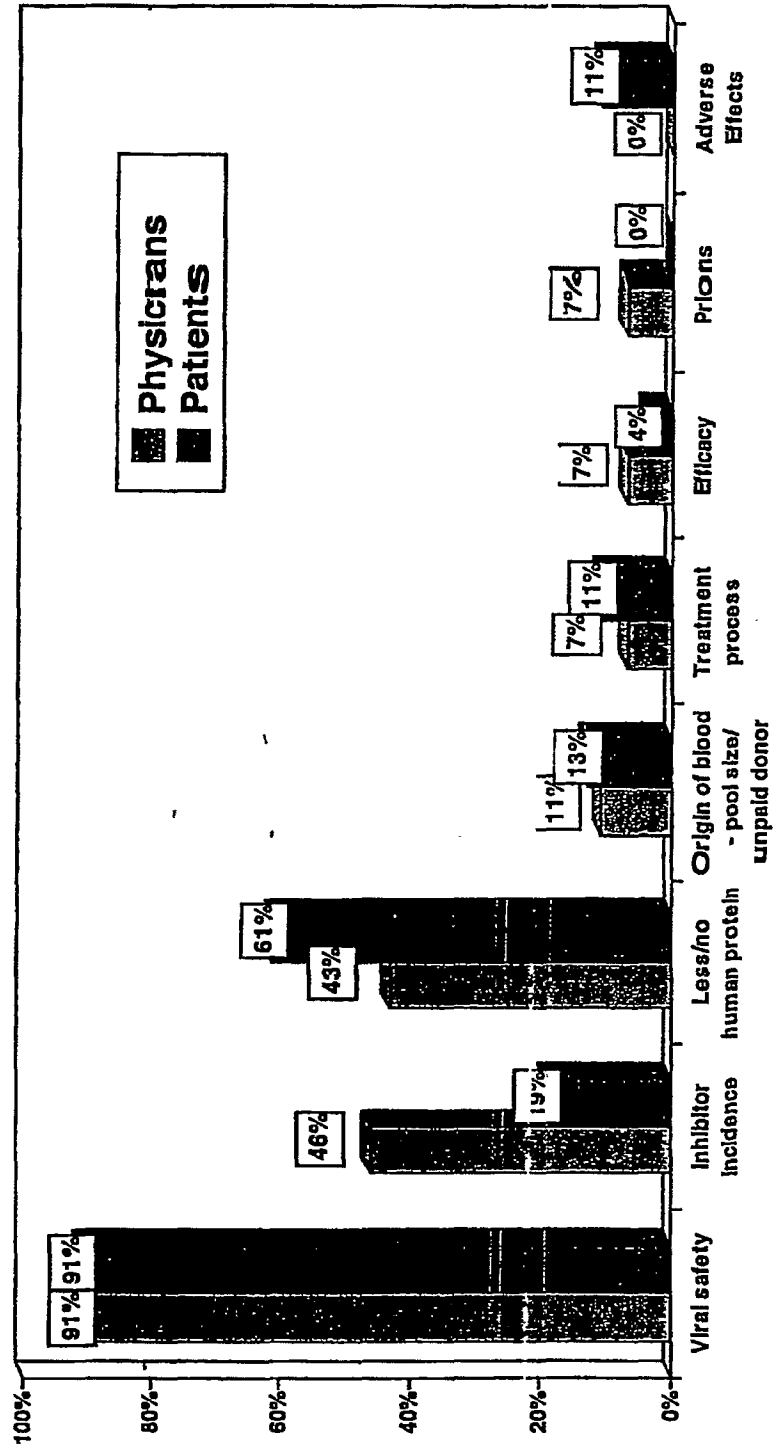


MARJEC

Viral safety, inhibitor incidence and level of human protein were most often mentioned as key elements of safety by both physicians and patients.

European Final

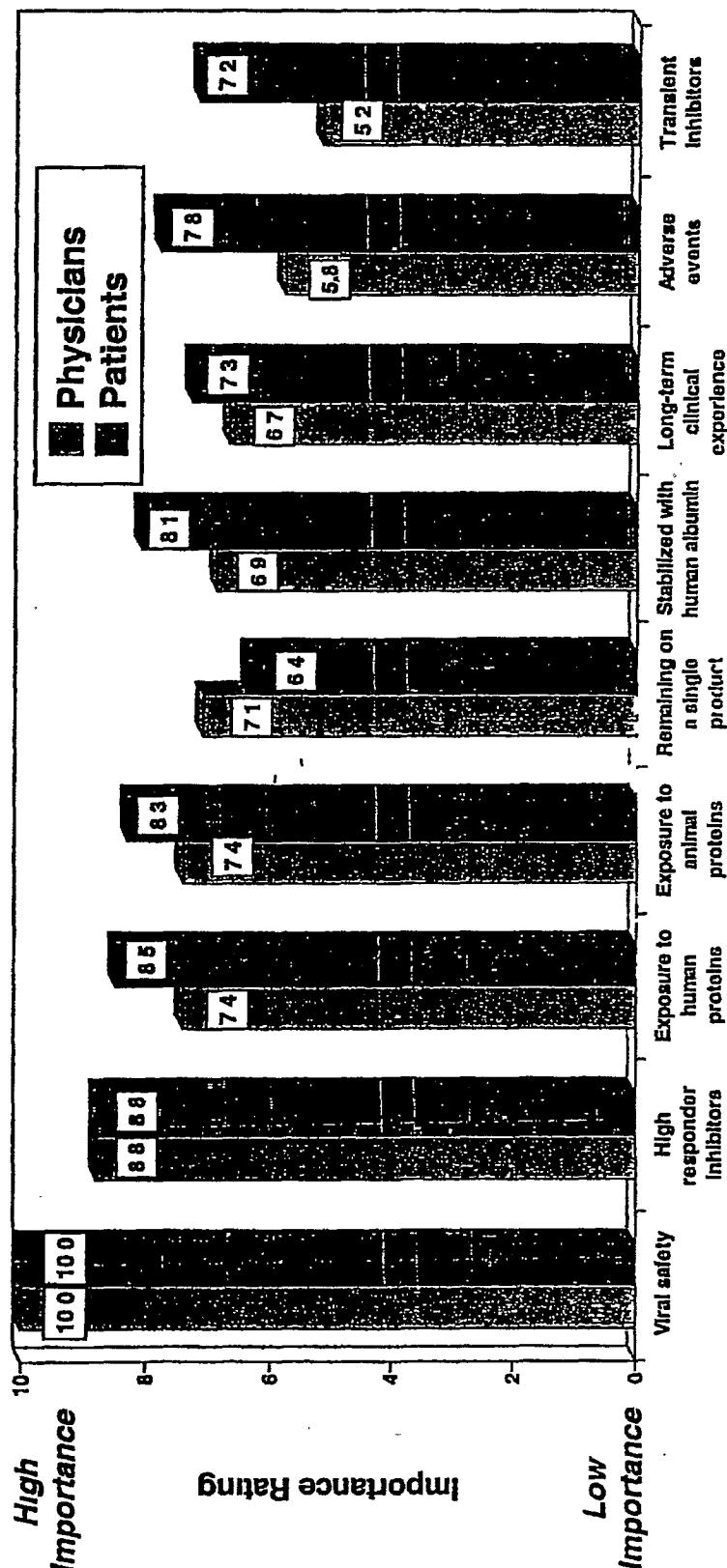
Unprompted Elements of Safety



Viral safety and high responder inhibitor rated the highest in terms of safety importance for both groups. Remaining on a single product rated the lowest in importance among patients.

European Final t

Safety Element Importance

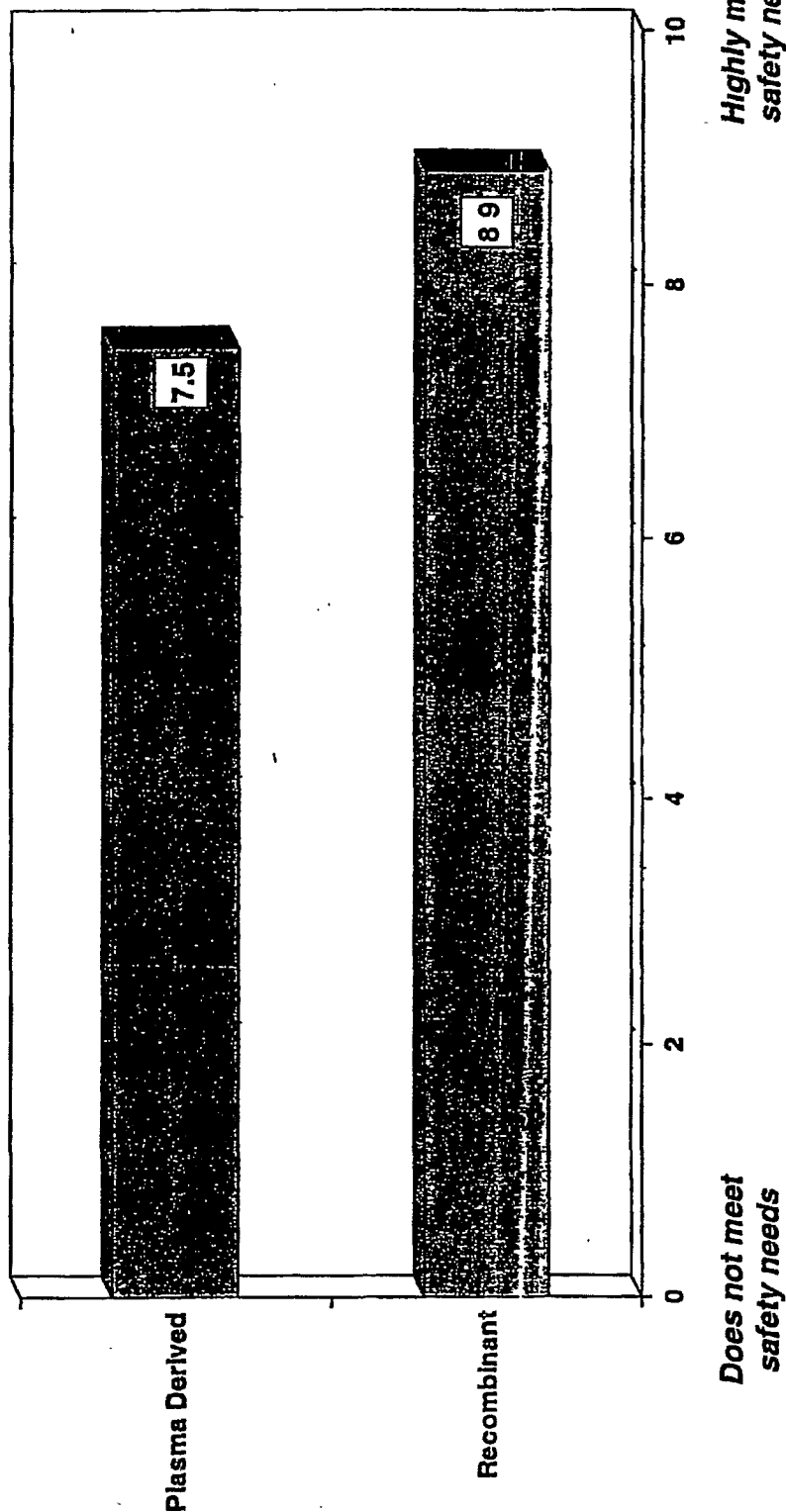


MARTEC

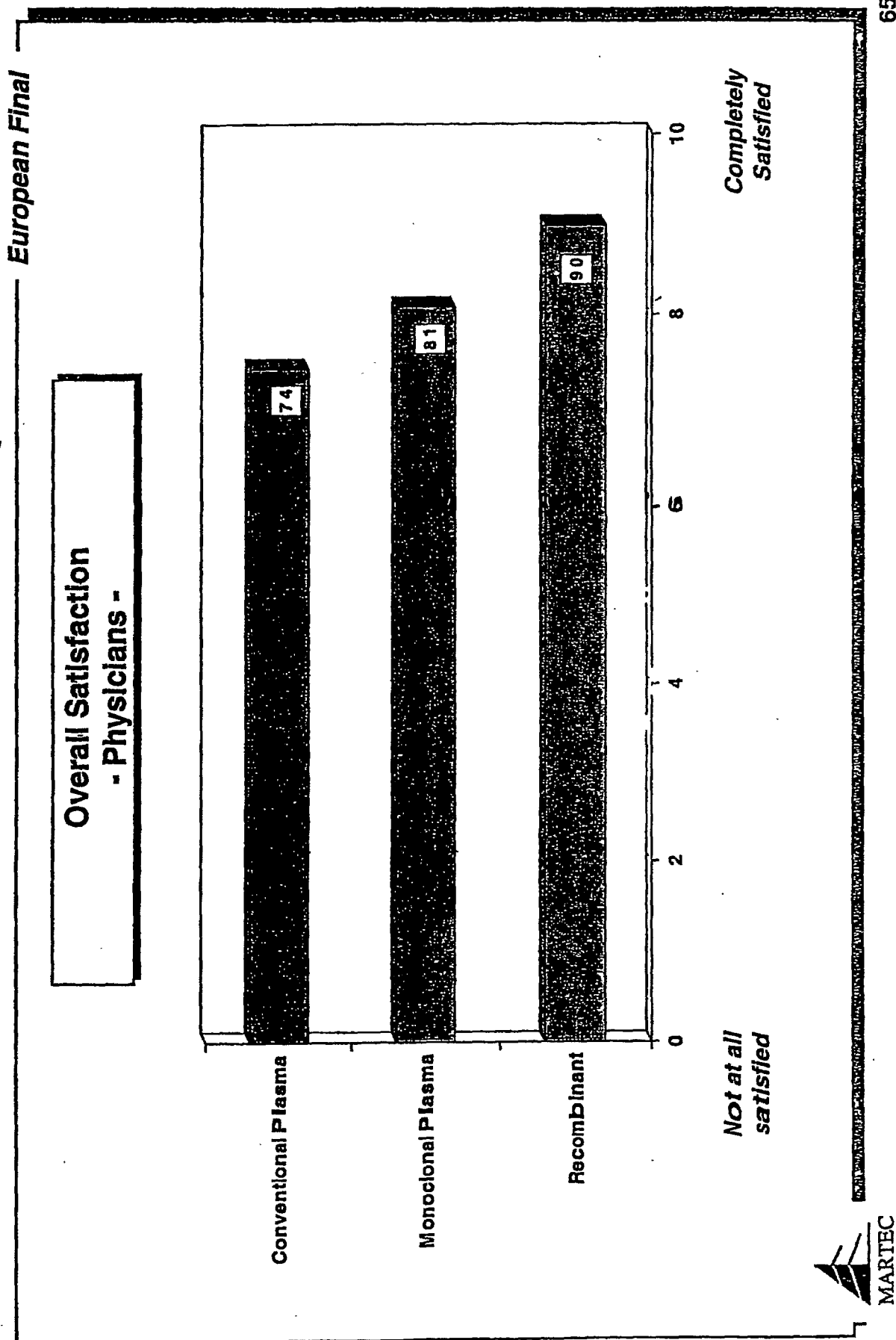
Recombinant products are perceived by European physicians as being much more able to satisfy patients' safety needs.

European Final

Safety Needs of Current Products
= Physicians -



Not surprisingly, physicians are more satisfied with recombinant products than with plasma derived products.

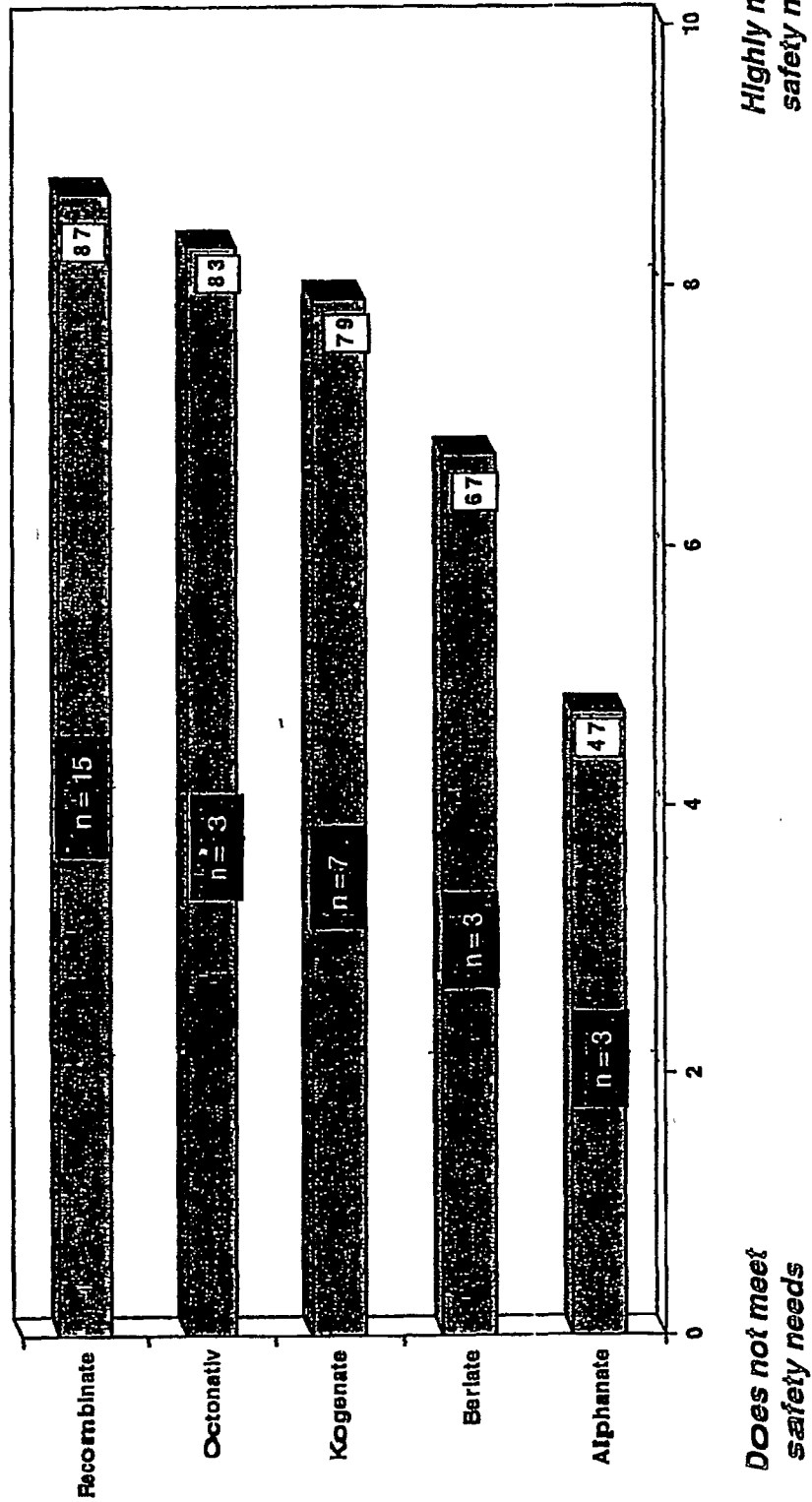


GH000901

Patients rated Recombinate the highest in terms of meeting their safety needs.

European Final

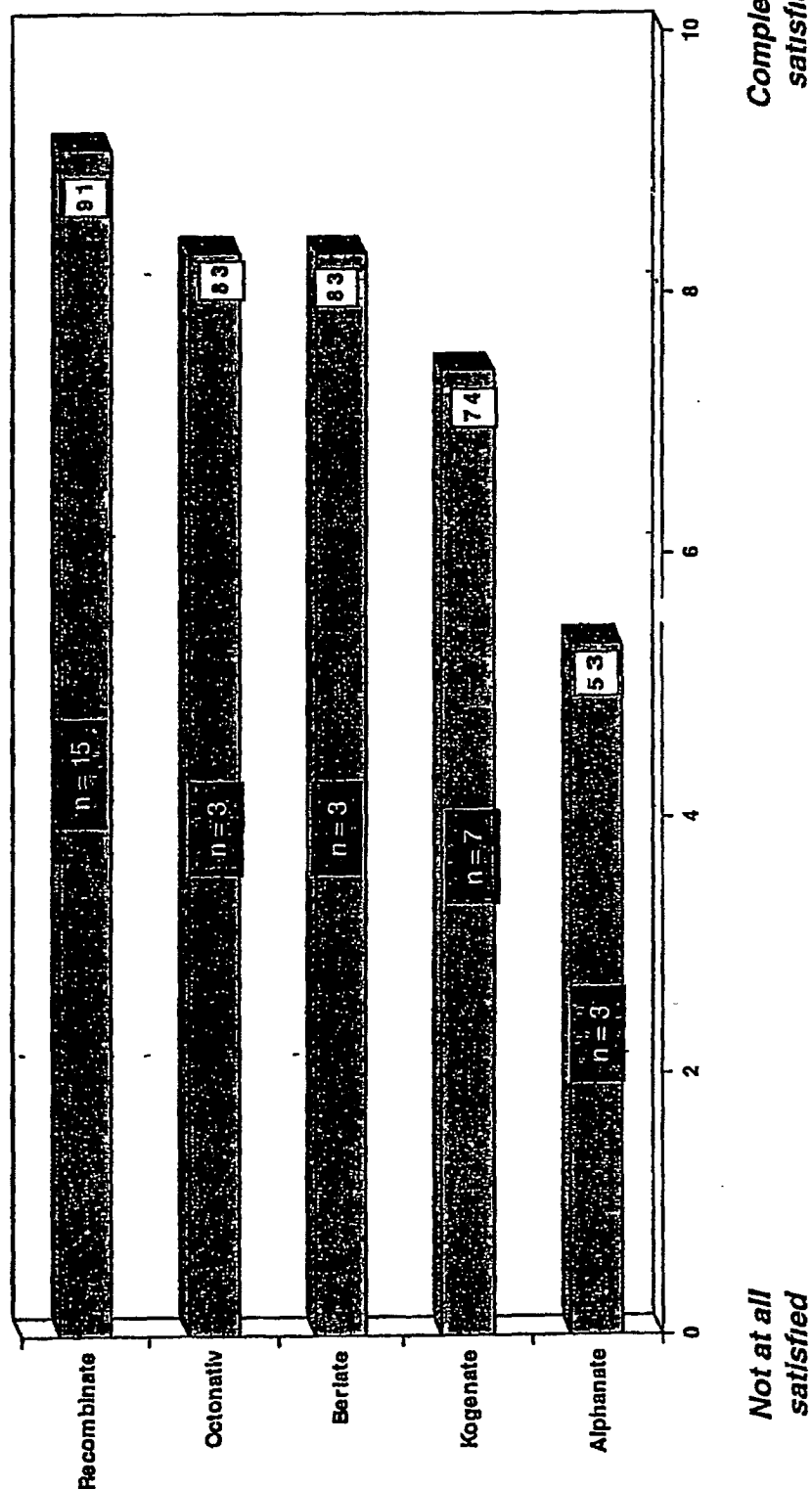
Safety Needs of Current Product
Patients =



Recombinant also received the highest current overall satisfaction rating from patients.

European Final

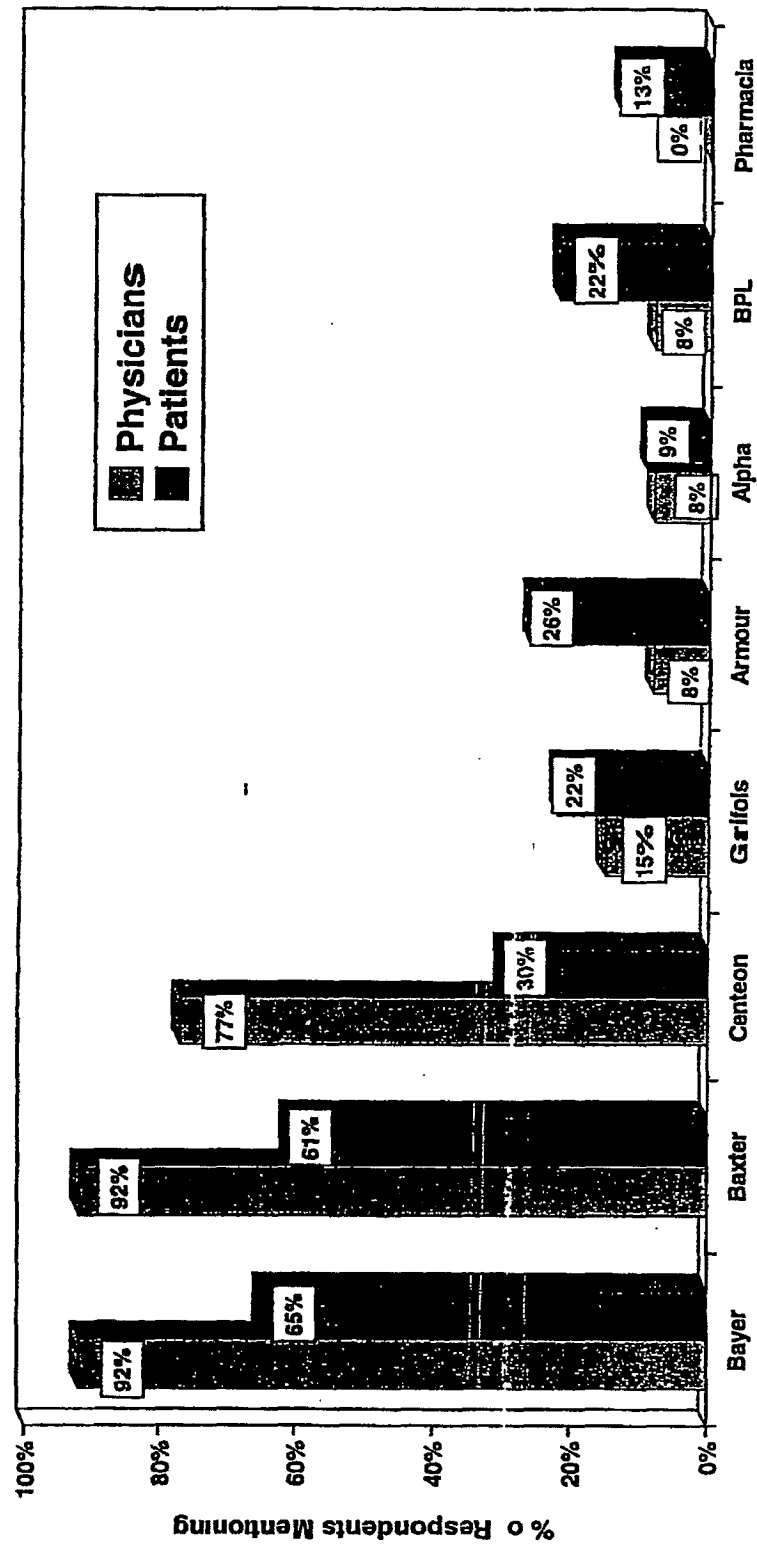
Overall Satisfaction
- Patients -



Baxter, Bayer and Centeon were most often thought of as "established" manufacturers of hemophilia products by physicians and to a lesser extent by patients.

European Final

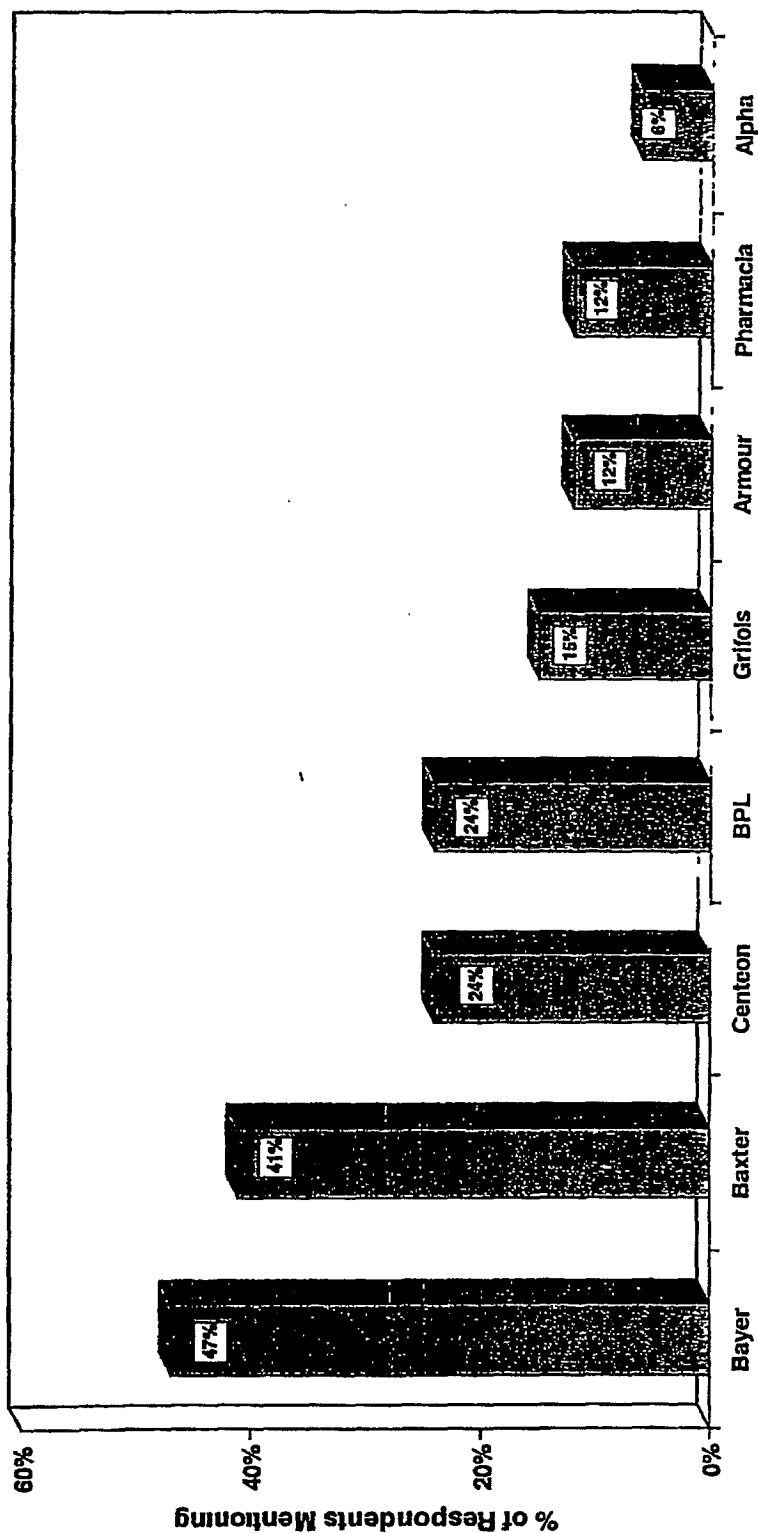
"Established" Manufacturers
- Unprompted -



Patients feel most comfortable with Bayer and Baxter as suppliers of their hemophilia products.

European Final

**Comfort Level with Manufacturers
- Patients Unprompted -**

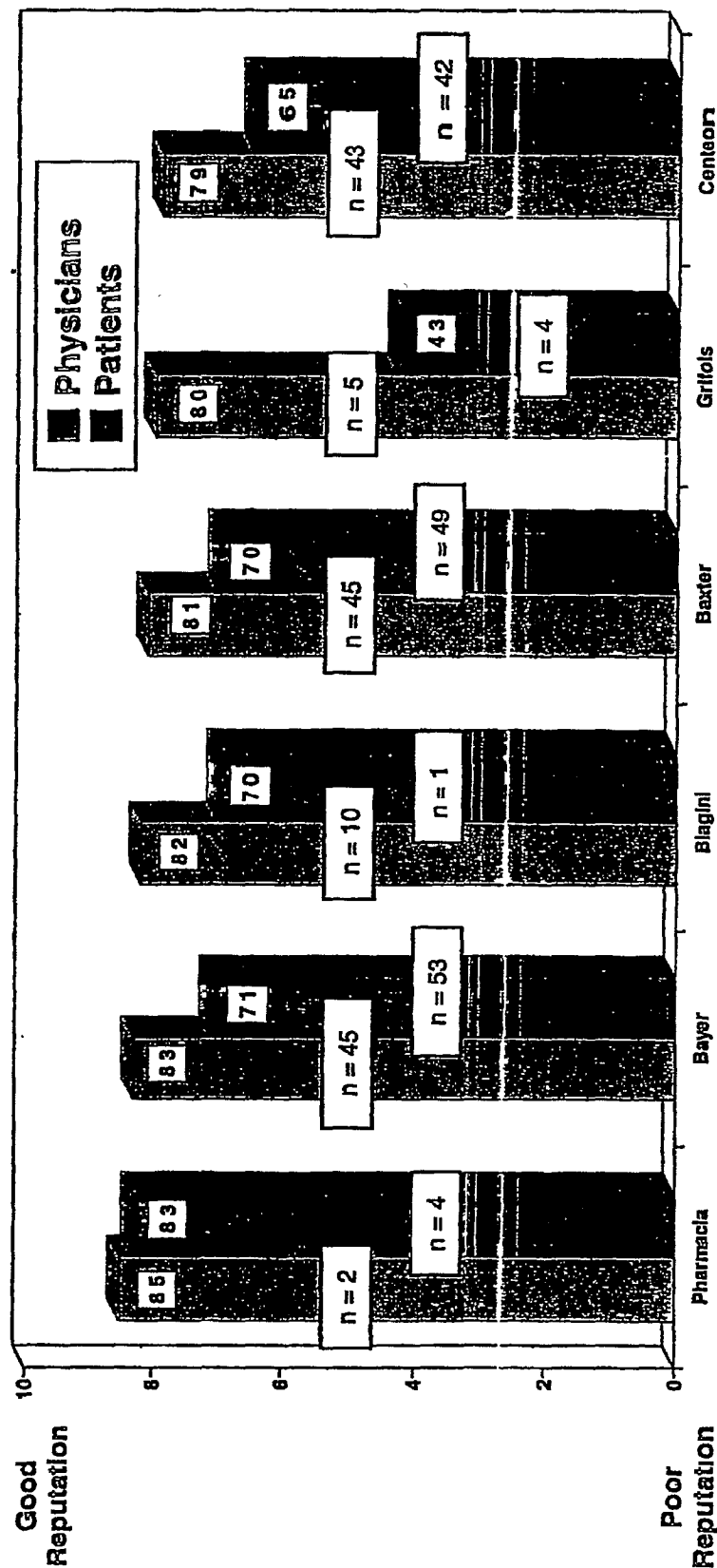


MARTEC

Physicians view all suppliers more highly in terms of their reputation than do patients. Pharmacia is not very well known, but considered to have the best reputation by those who rate them.

European Final

Company Reputation
- Prompted -

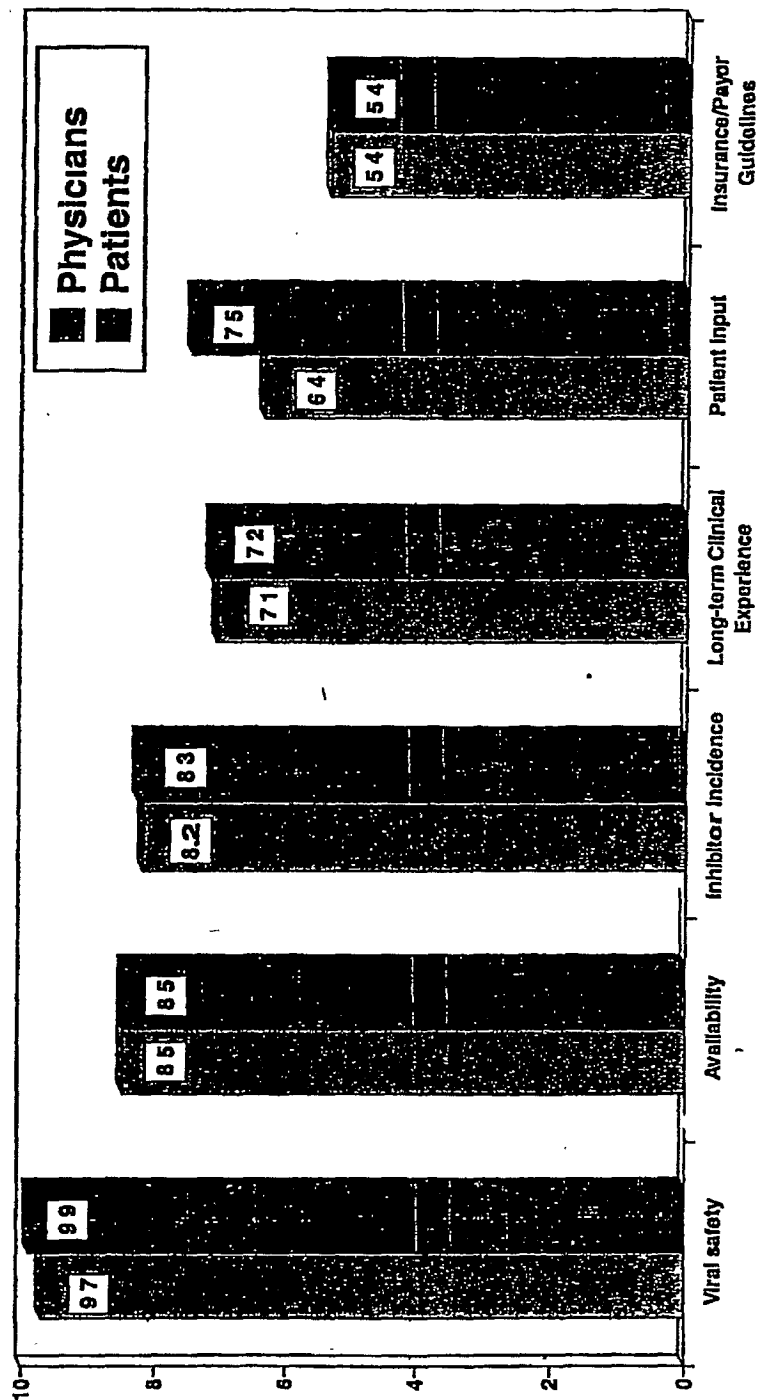


MARTEC

***Viral safety* is clearly considered the most important criteria among both groups when selecting a recombinant Factor VIII concentrate.**

European Final

**Key Switching Criteria
- Importance Ratings -**

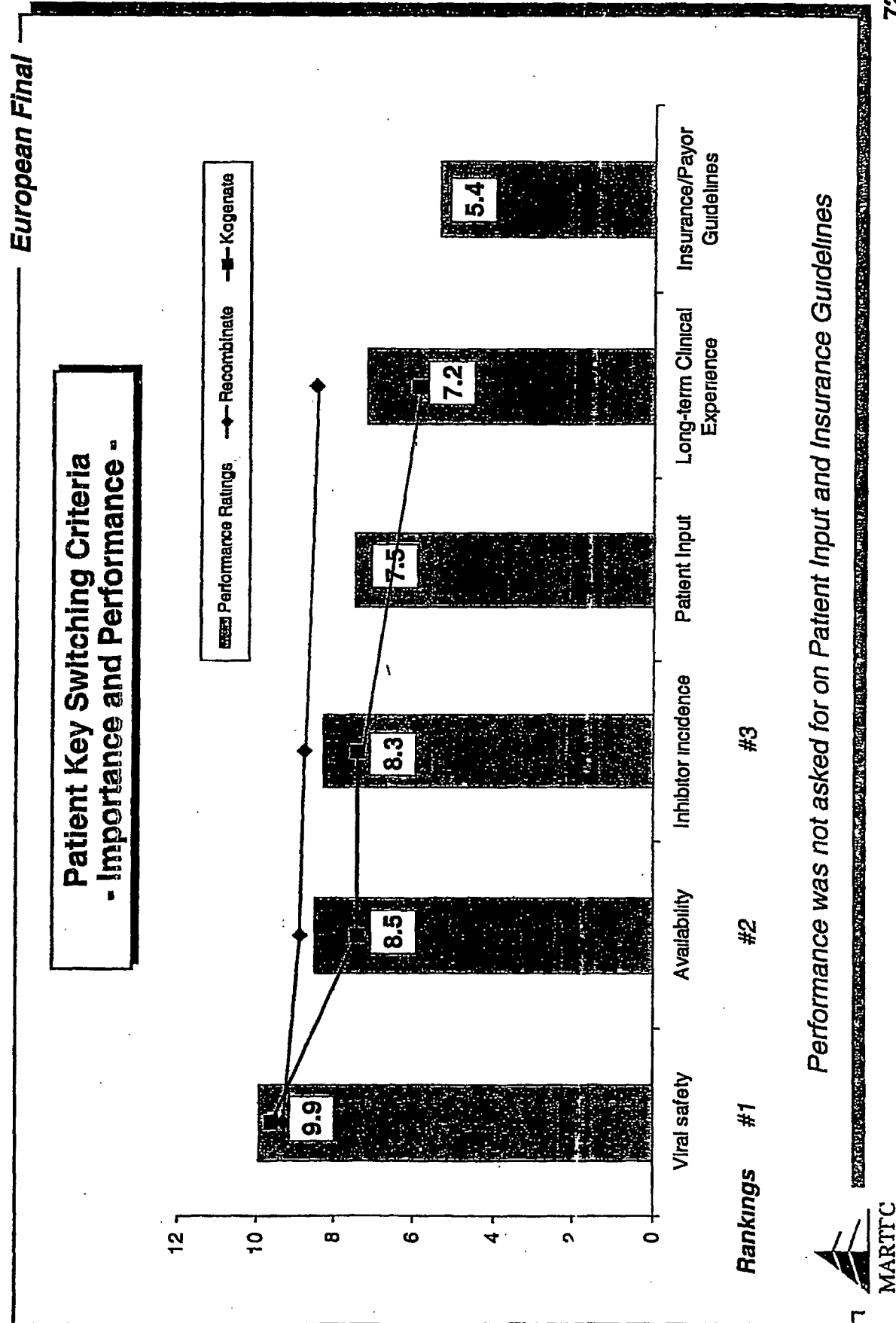


Rankings



MARTEC

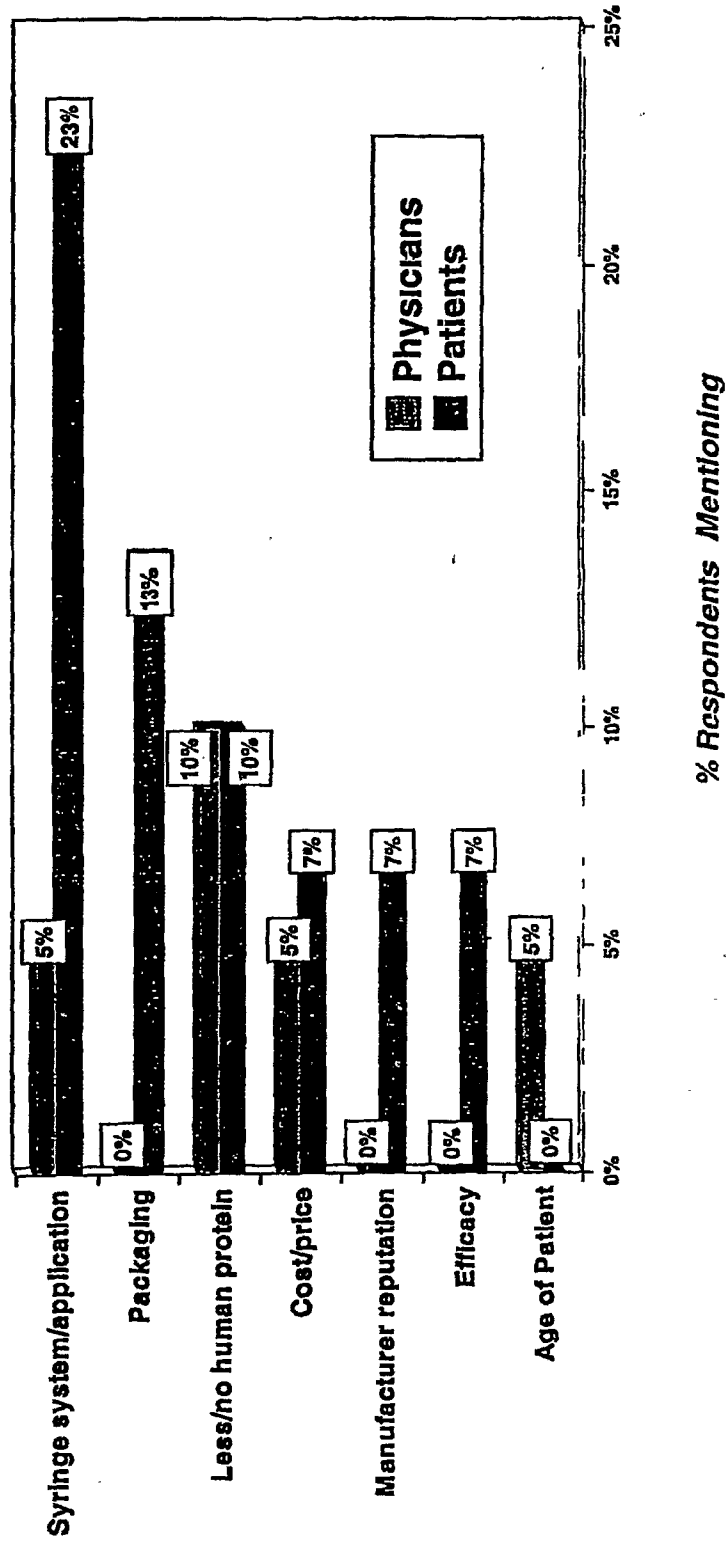
When asked about product performance, patients report that Baxter outperforms Bayer in 3 of 4 key switching criteria.



When asked about other selection criteria not on the previous list, syringe system/application was mentioned most often; by nearly one quarter of patients.

European Final

Other Selection Criteria
- Not from list provided -



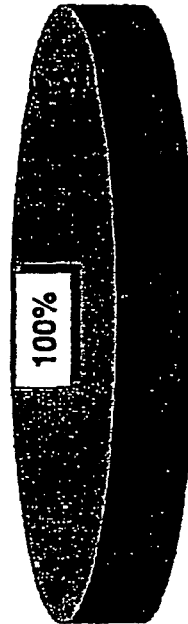
Every physician is satisfied with current vile size and potency strength options, but only 43% of patients feel this way.

European Final

Vile Sizes and Potency Strengths

Physicians

Yes, satisfied



Patients

No, not satisfied



Yes, satisfied

"The current offering is sufficient to cover most situations. However, there could be 250 unit vials for pediatric treatments"

Spanish Physician

"The number of units are OK, but smaller vile sizes are needed"

- Danish Patient

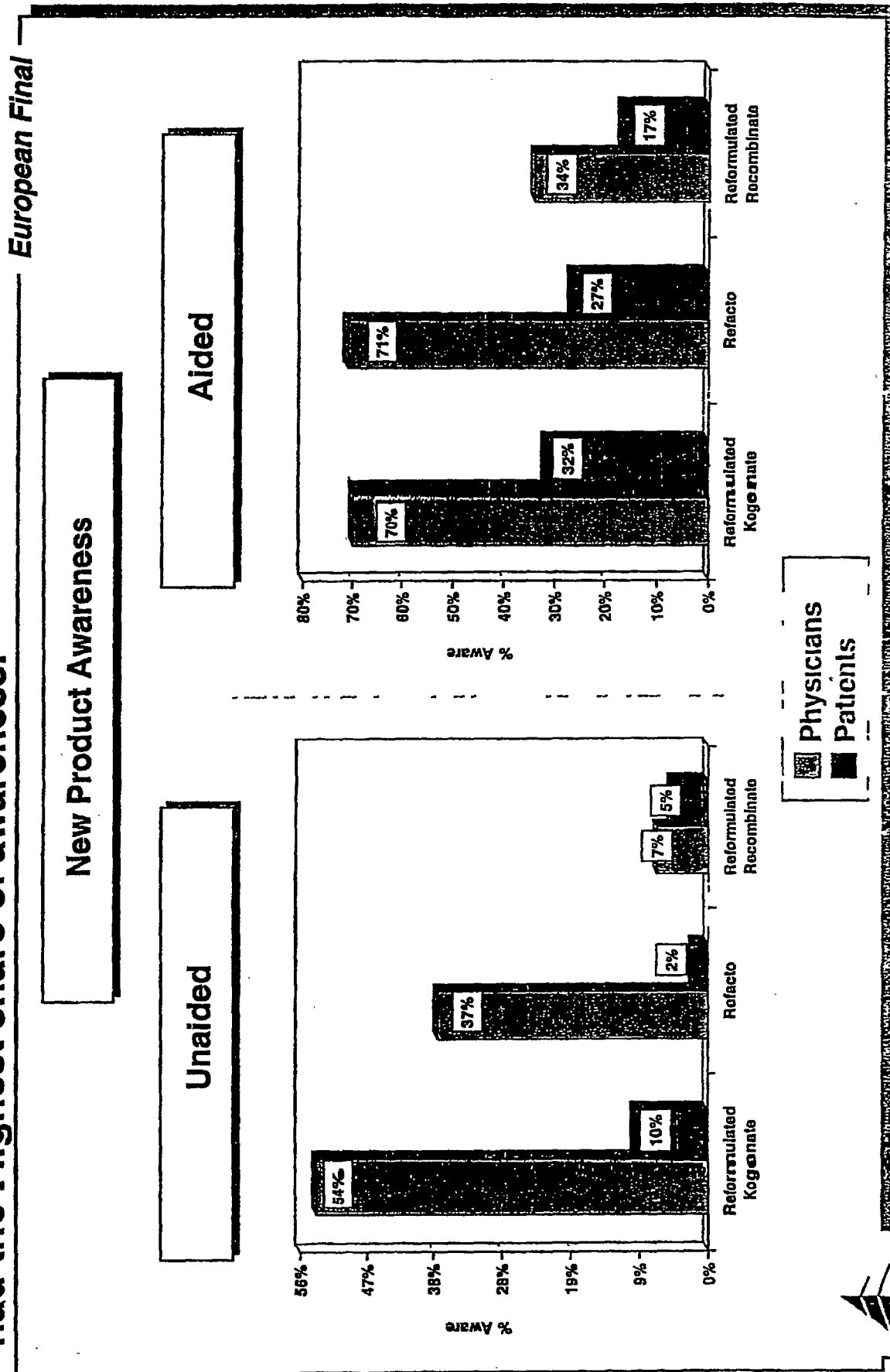
"I would prefer higher concentrations so they would take up less space in the refrigerator and would be easier to travel with"

- Spanish Patient



MARTEC

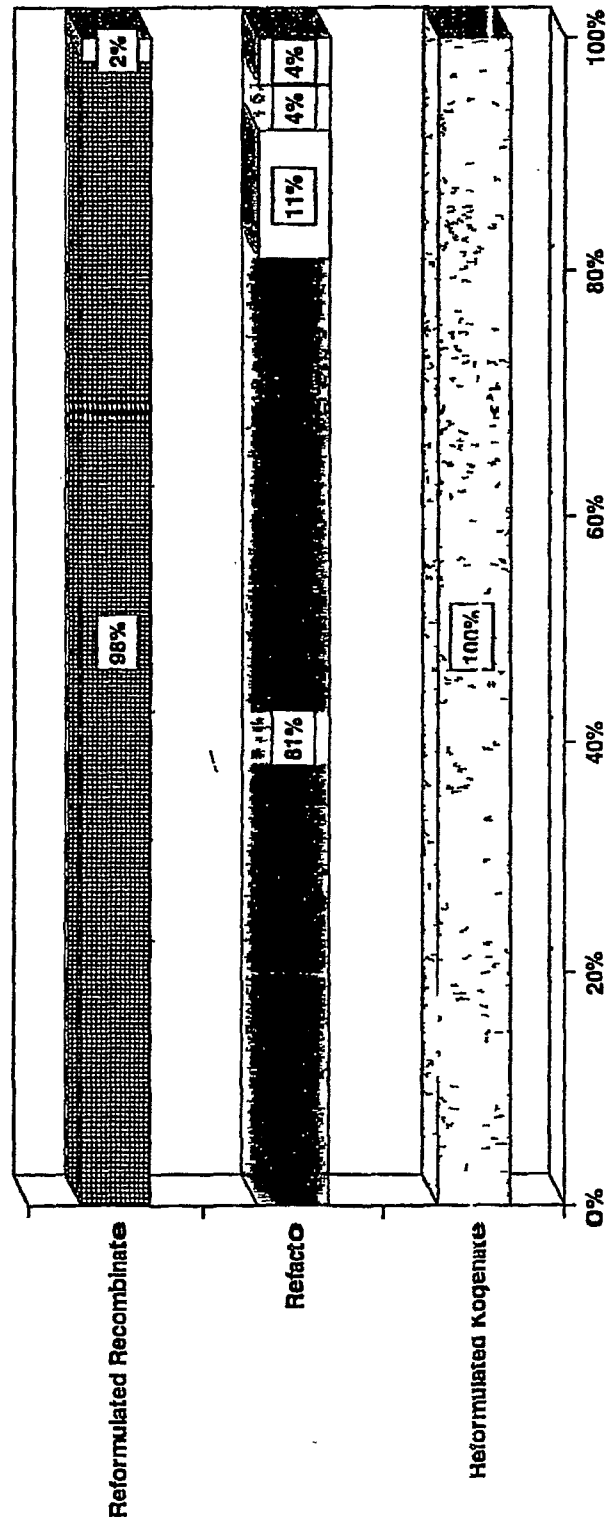
Not surprisingly, physicians are much more knowledgeable of new products coming to market than patients. Reformulated Kogenate had the highest share of awareness.



In general, physicians are very well aware of who will manufacture the new products.

European Final

New Product Manufacturer Awareness
- Physicians -



% Respondents Naming the Manufacturer

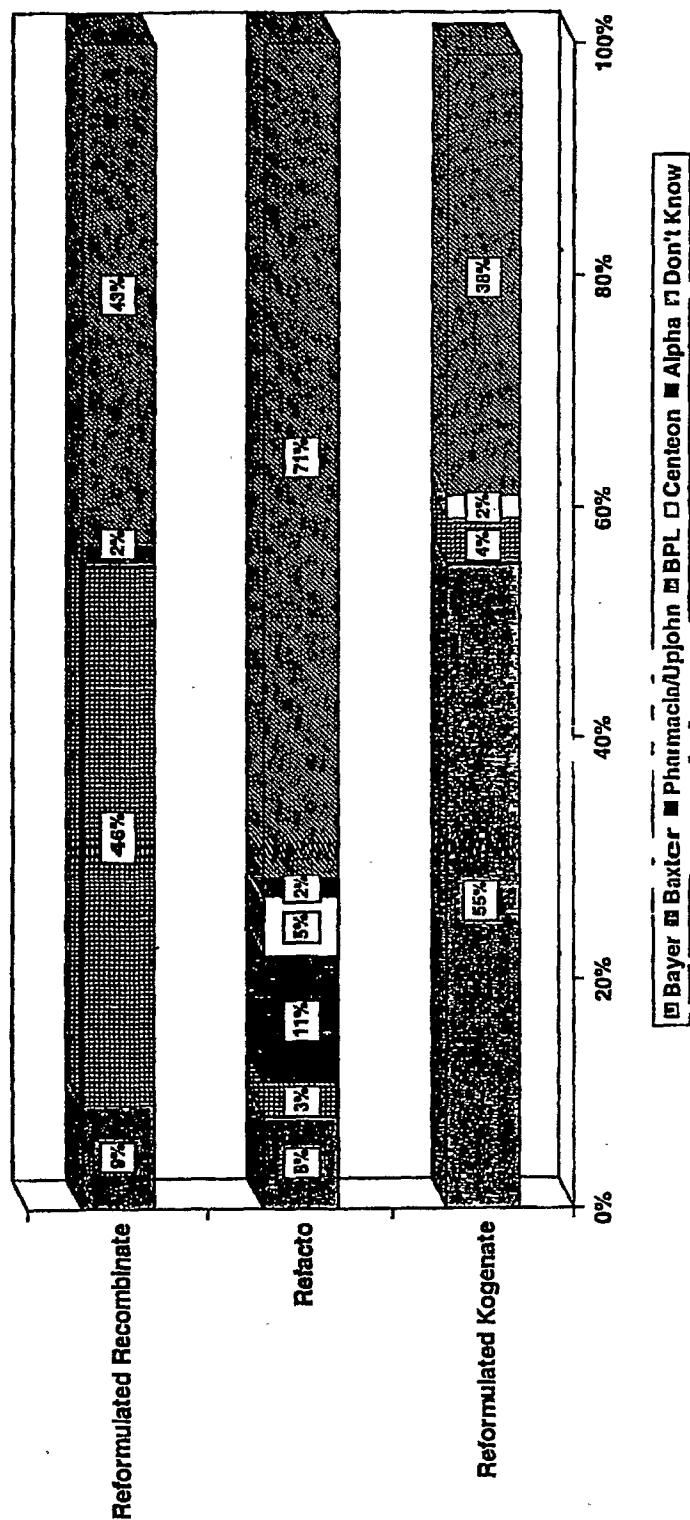
☐ Bayer ☒ Pharmacia/Upjohn ☐ GI ☐ Kabi ☐ Don't Know



European patients are most aware of Bayer as a manufacturer of reformulated products. The most confusion exists with Refacto.

European Final

**New Product Manufacturer Awareness
- Patients -**



% Respondents Naming the Manufacturer



Not surprisingly, European physicians know the most about Kogenate II and the least about Recombinate.

European Final

**Current Knowledge of New Products
- Physician Comments -**

Kogenate II

"It will no longer use albumin as a stabilizer, it has been replaced by polysaccharide. It just started trials"

- German Physician

"It is not stabilized with human albumin, but albumin is still present in the culture medium"

- French Physician

Recombine II

"I was just told by a Baxter representative that is will no longer use albumin as a stabilizer and will have complete Factor VIII molecules"

- Italian Physician

"I think Baxter is behind Bayer. Bayer talks of a new generation, Baxter does not"

- Italian Physician

Refacto

"Contains no human albumin, b-domain deleted and in theory lower in inhibitors"

- UK Physician

"They will not use albumin and will have a modified Factor VIII molecule with a higher activity and perhaps a lower risk of inhibitors"

- Italian Physician



MARTEC

While not clear on all aspects of the reformulated products, most patients believe that albumin is being reduced or eliminated.

European Final

Current Knowledge of New Products
- Patient Comments -

Kogenate II

"It will not use human albumin as a stabilizer, but sugar as a substitute "
- German Patient

"It contains no human albumin."

- French Patient

Recombinate II

"I think it will be the same as the next generation Kogenate."

- UK Patient

"I think they will still use human albumin "

- Italian Patient

Refacto

"They use a modified Factor VIII molecule and no animal proteins or human albumin "

- German Patient

"It is a better product than generation one recombinants Overall, I hear it is well tolerated by patients "

- German Patient



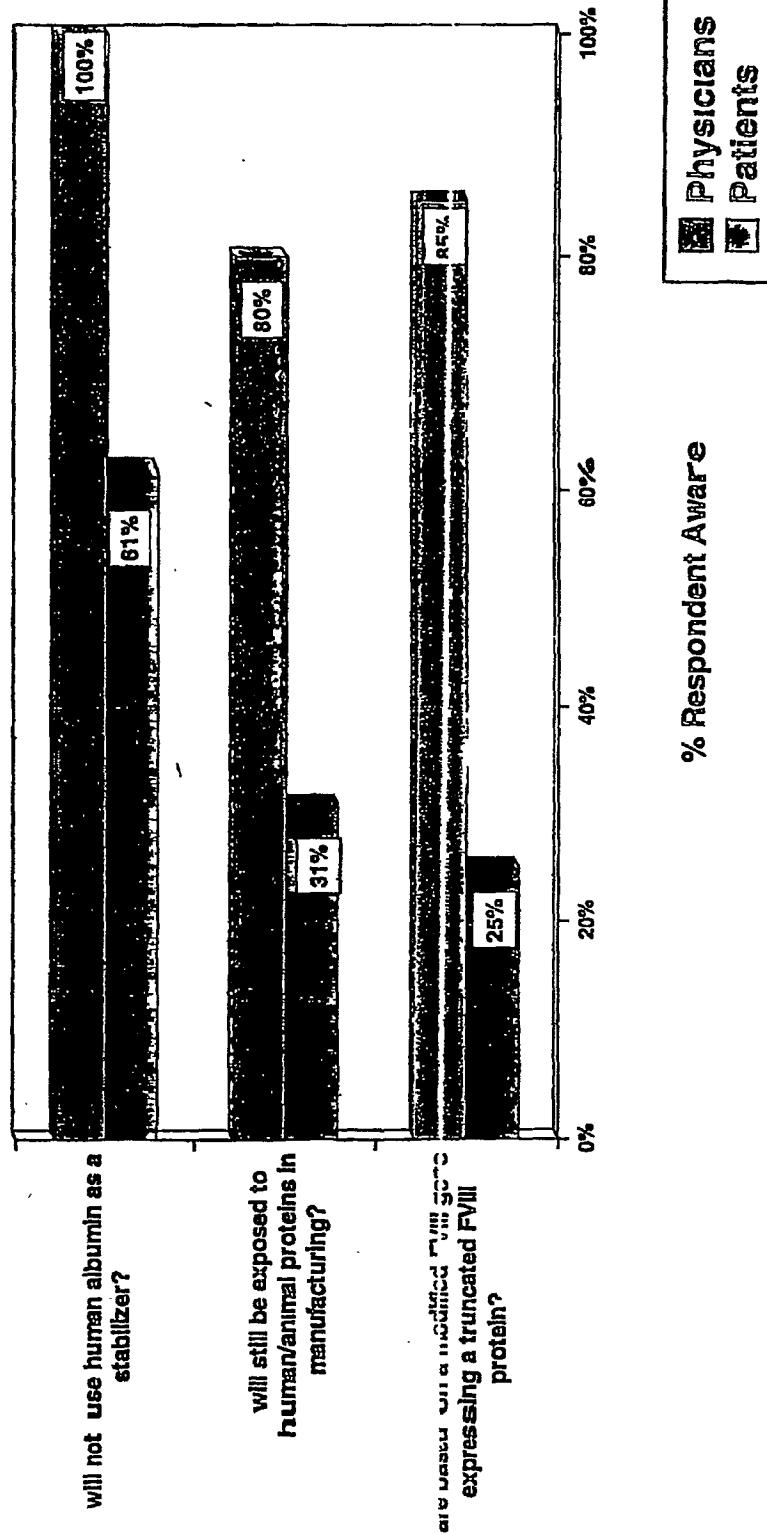
MARTEC

Nearly all European physicians claim to be aware of the composition of the newly reformulated products. Patients, for the most part, only knew that human albumin would not be used as a stabilizer.

European Final

New Product Awareness - Patients -

Are you aware that certain reformulated recombinant Factor VIII concentrates ...



MARTEC

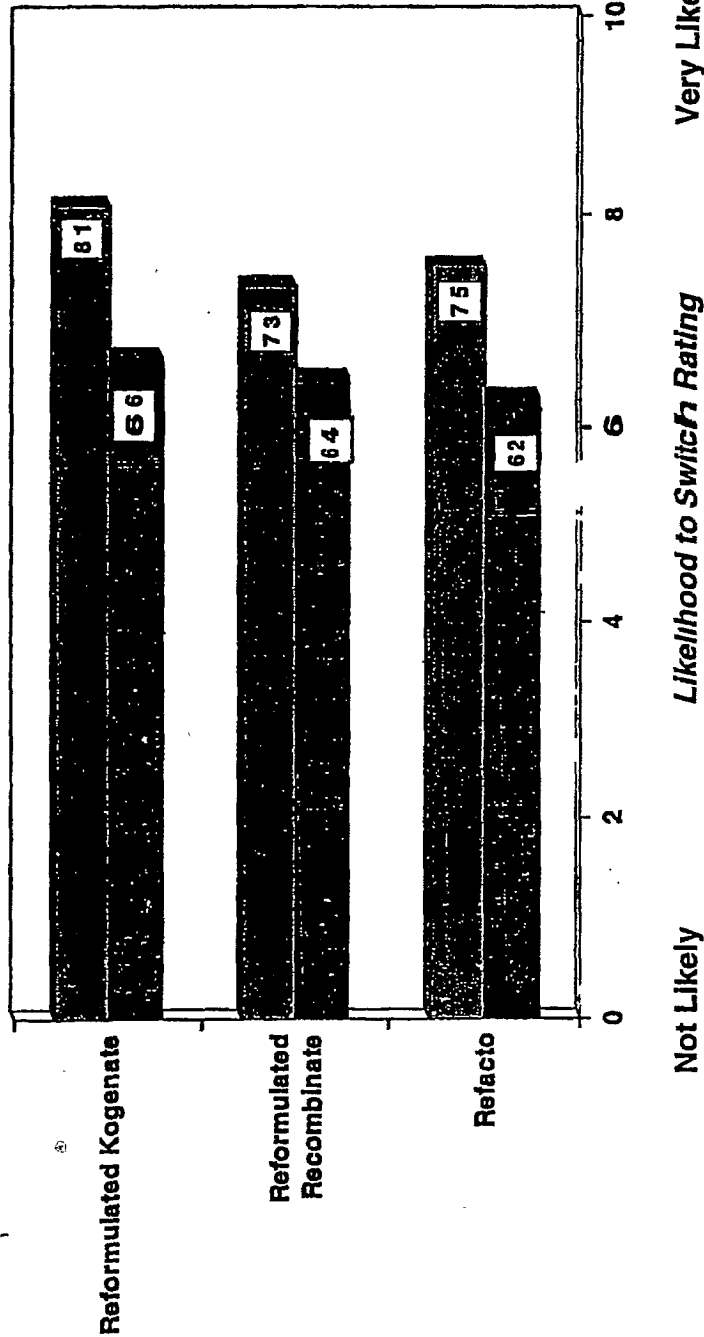
80
GH000916

The high percentage of "don't knows" indicates a need for more information before switching. But, the greater the knowledge the more likely they will switch, as revealed by reformulated Kogenate's ratings.

European Final

**Likelihood to Switch
to Reformulated Product**

% Don't Know*



Physicians
Patients

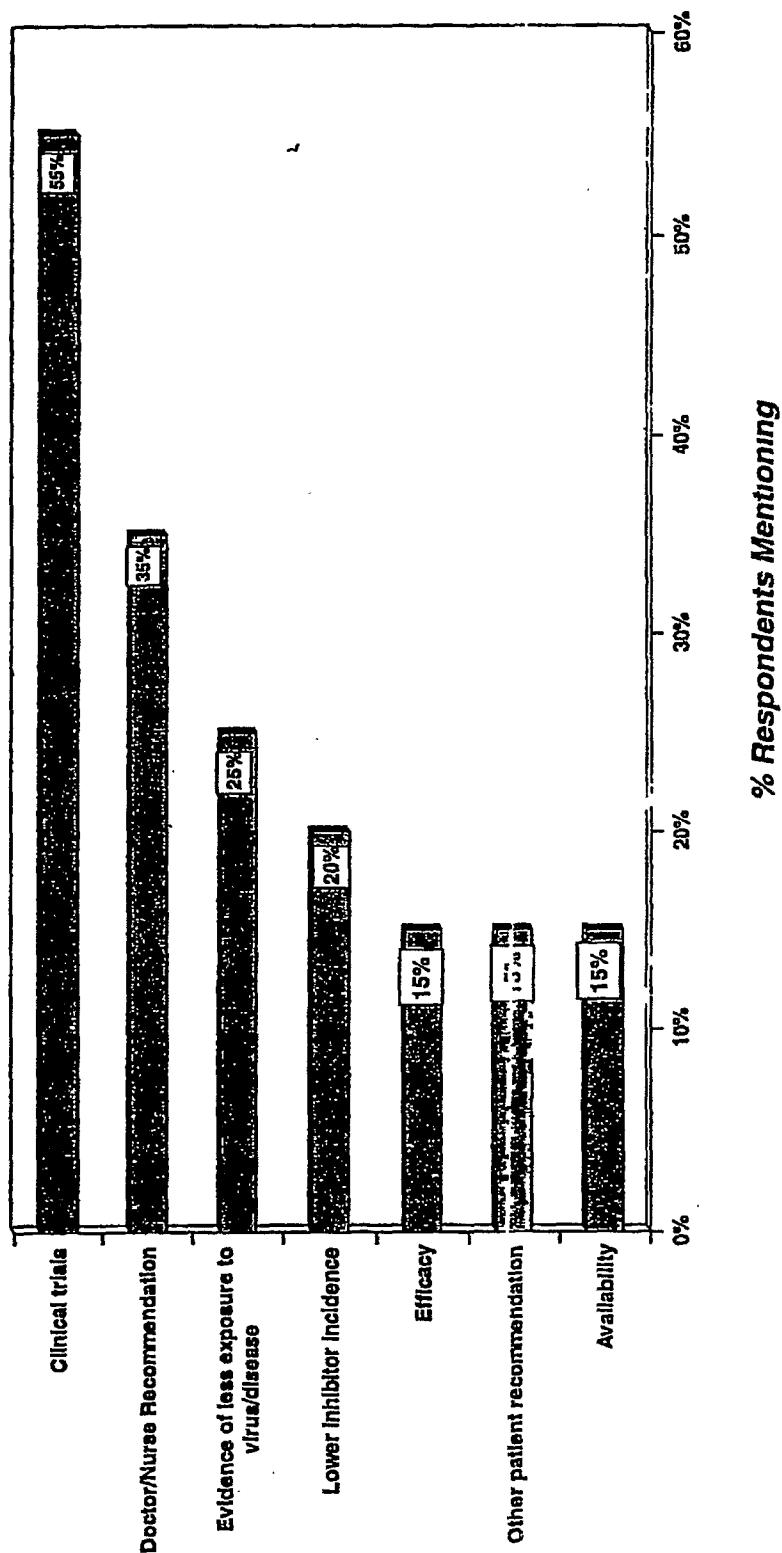
* Clinical trial results and a product with less/no human albumin are needed before physicians will recommend switching



European patients need to see clinical trial results and have doctor/nurse recommendations prior to switching to a reformulated product.

European Final

**Information Required to Switch
- Patients -**



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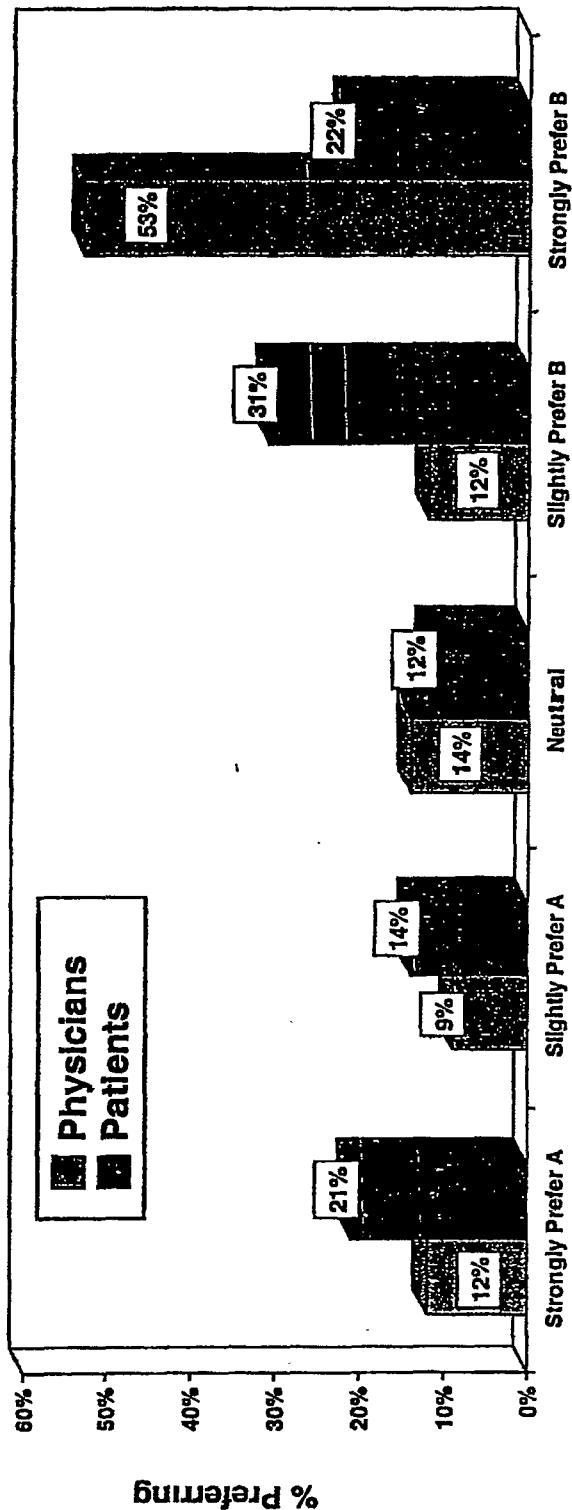
Physicians show a strong preference and patients show a slight preference for a reformulated Factor VIII concentrate from a current maker; even one that has been on the market for only six months.

European Final

Product Trade-off
- Current vs. Reformulated -
Manufacturer and price are equal

CURRENT REFORMULATED

CURRENT

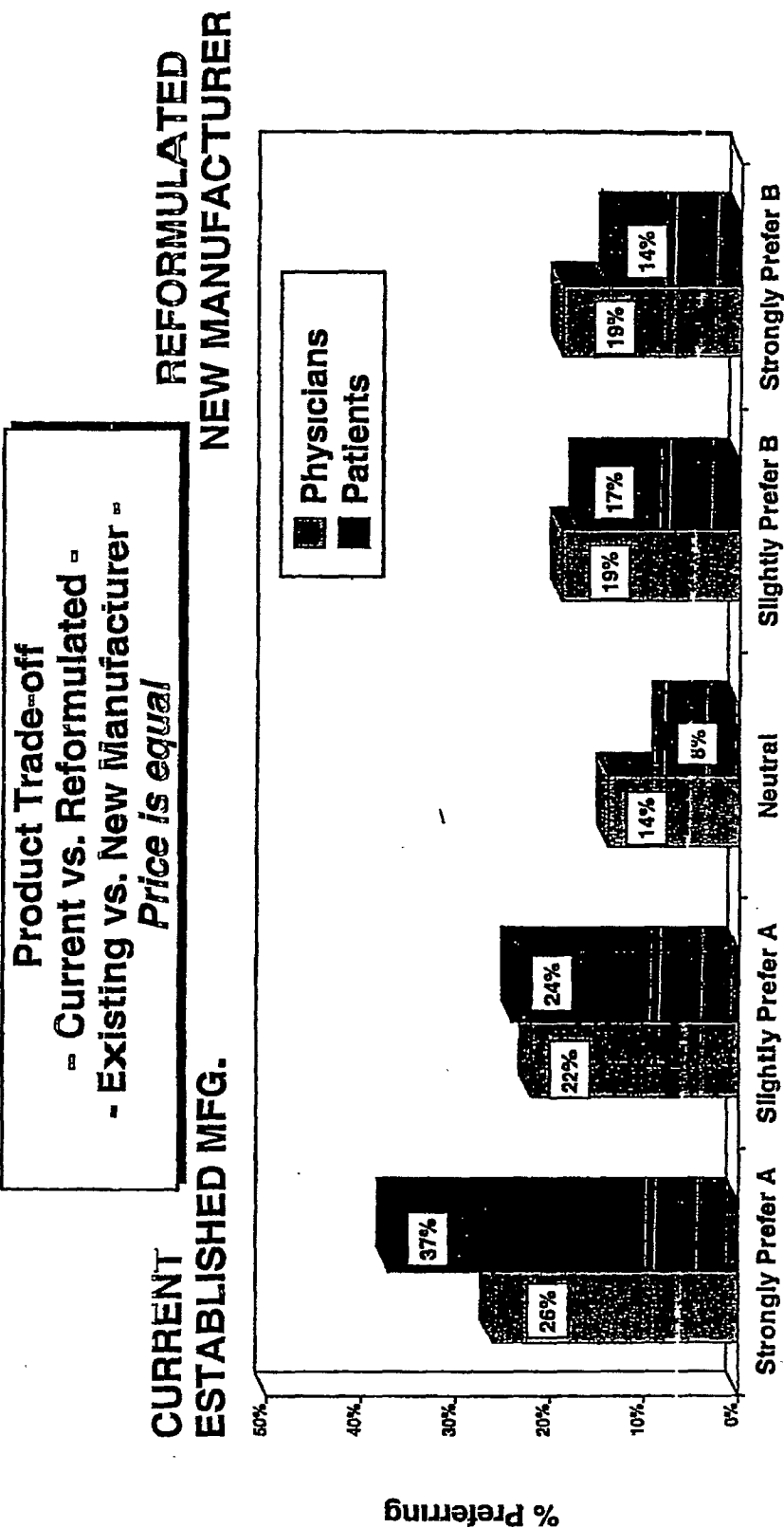


Product A A current recombinant Factor VIII concentrate that has been on the market for six years
Product B A reformulated recombinant Factor VIII concentrate that has been on the market for six months
Comments Both are manufactured by the same company and cost the same



Over 60% of patients demonstrate a preference for a current product from an existing manufacturer over a reformulated product from a new manufacturer. The preference is only slight from physicians.

European Final



Product A: A current recombinant Factor VIII concentrate that has been on the market for six years

Product B A reformulated recombinant Factor VIII concentrate that has been on the market for six months

Comments Product A is manufactured by the company that is established as a manufacturer of recombinant Factor VIII concentrates. Product B is manufactured by company with no experience with Factor VIII concentrates. Both cost the same.

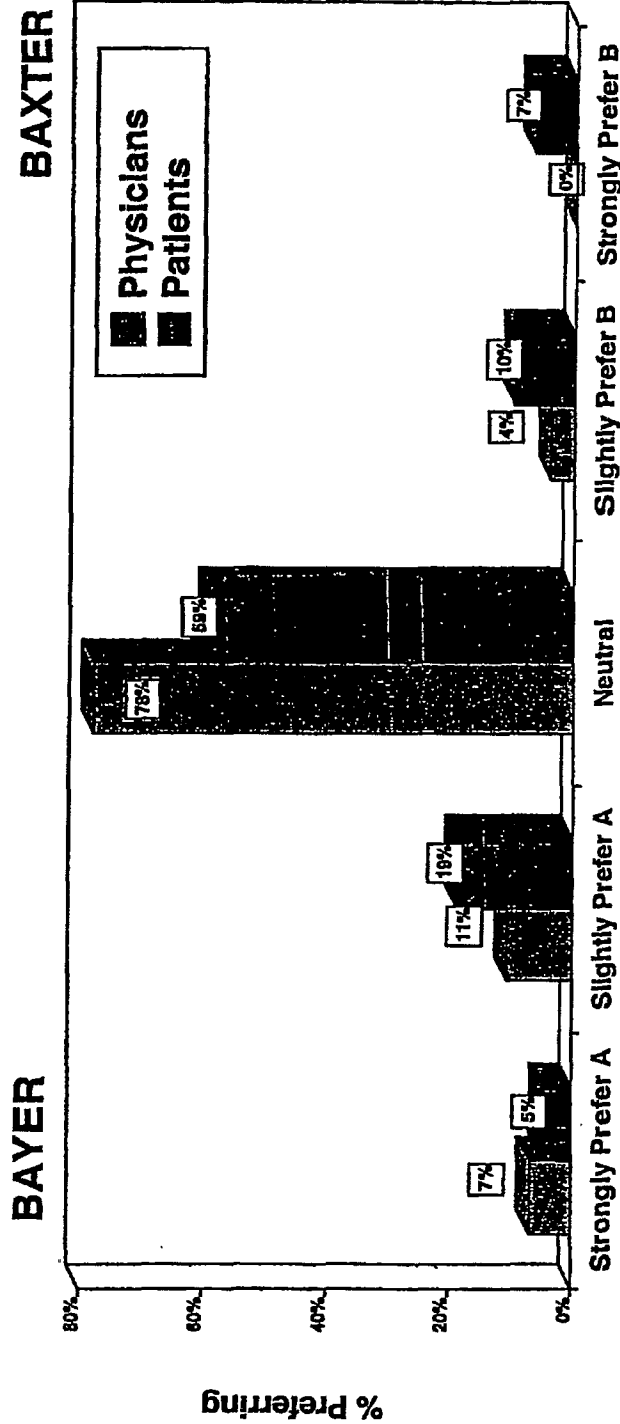


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Typically, European physicians and patients are neutral in their preference for a reformulated product from Bayer or Baxter.

European Final

Patient Product Trade-off
- Reformulated Bayer vs. Reformulated Baxter -
Price is equal



Product A: A reformulated recombinant concentrate sold by Bayer
Product B: A reformulated recombinant concentrate sold by Baxter
Comments: Price is equal



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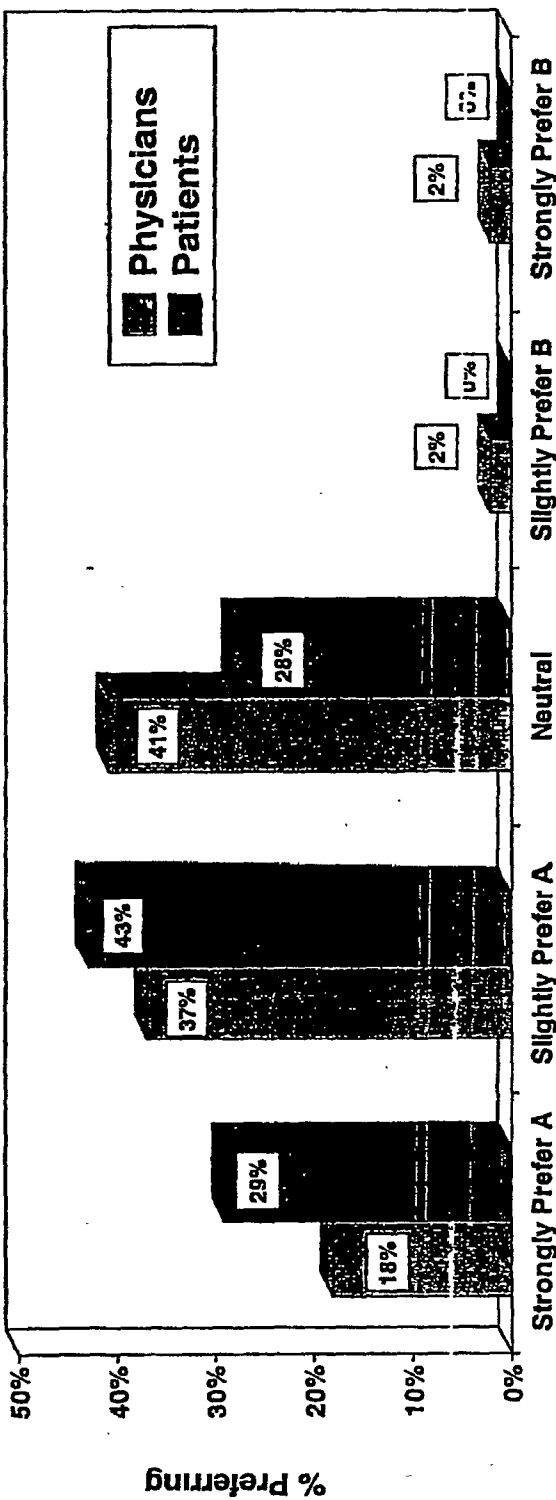
Over 50% of physicians and 72% of patients express a preference for a reformulated product from Baxter over one from a new player to this market like Genetics Institute.

European Final

Product Trade-off
- Reformulated Baxter vs. Reformulated from New -
Price is equal

BAXTER

GENETICS INSTITUTE



Product A. A reformulated recombinant concentrate sold by Baxter

Product B: A reformulated recombinant concentrate sold by a new player to this market, such as Genetics Institute

Comments. Price is equal



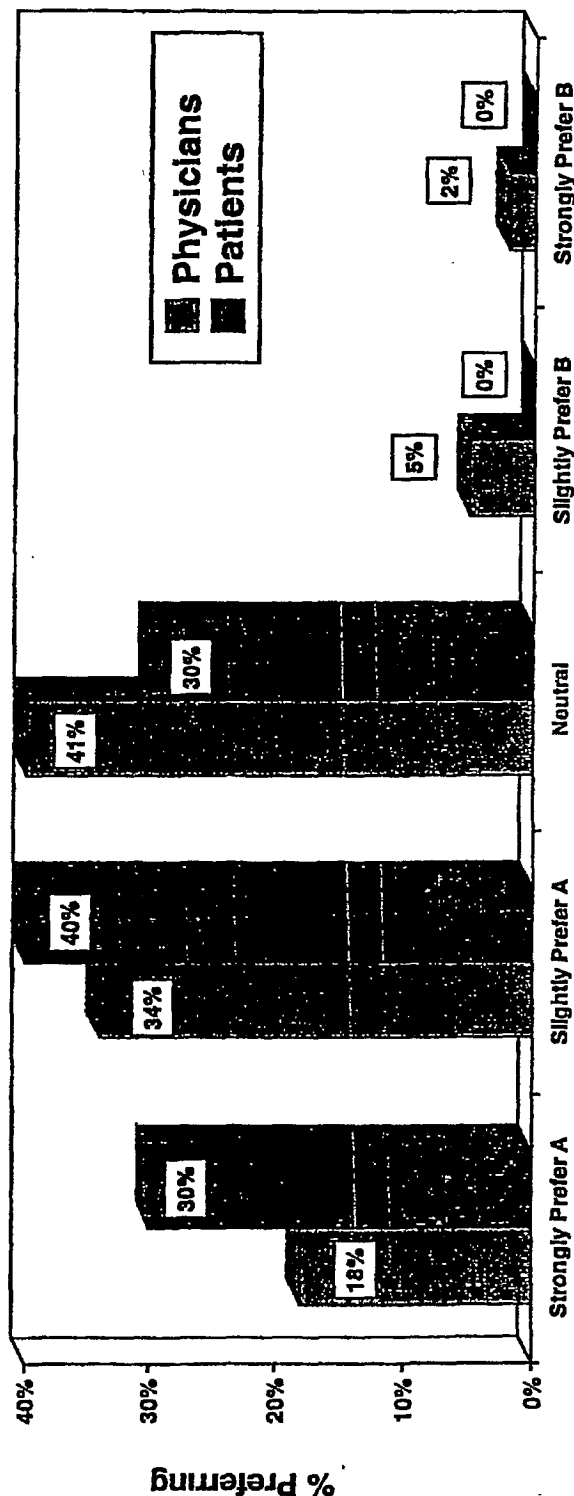
As is the case with Baxter, most respondents express a preference for a reformulated product from Bayer over one from a new player to this market like Genetics Institute.

European Final

Product Trade-off
- Reformulated from Bayer vs. Reformulated from New -
Price is equal

BAYER

GENETICS INSTITUTE



Product A. A reformulated recombinant concentrate sold by Bayer

Product B. A reformulated recombinant concentrate sold by a new player to this market, such as Genetics Institute

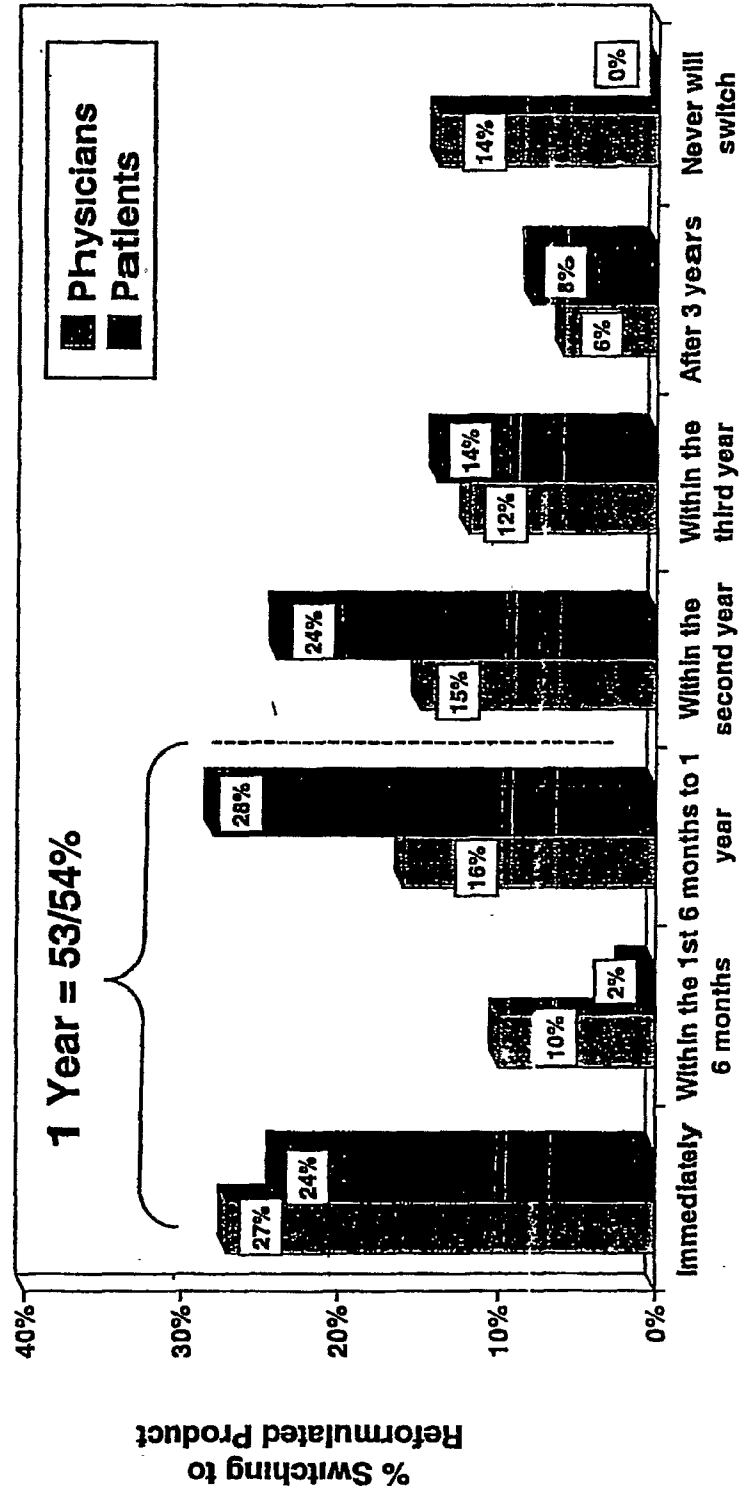
Comments Price is equal



Both European physicians and patients indicate that over 50% of patients will switch to a reformulated product within the first year of its market introduction.

European Final

Switching Timing

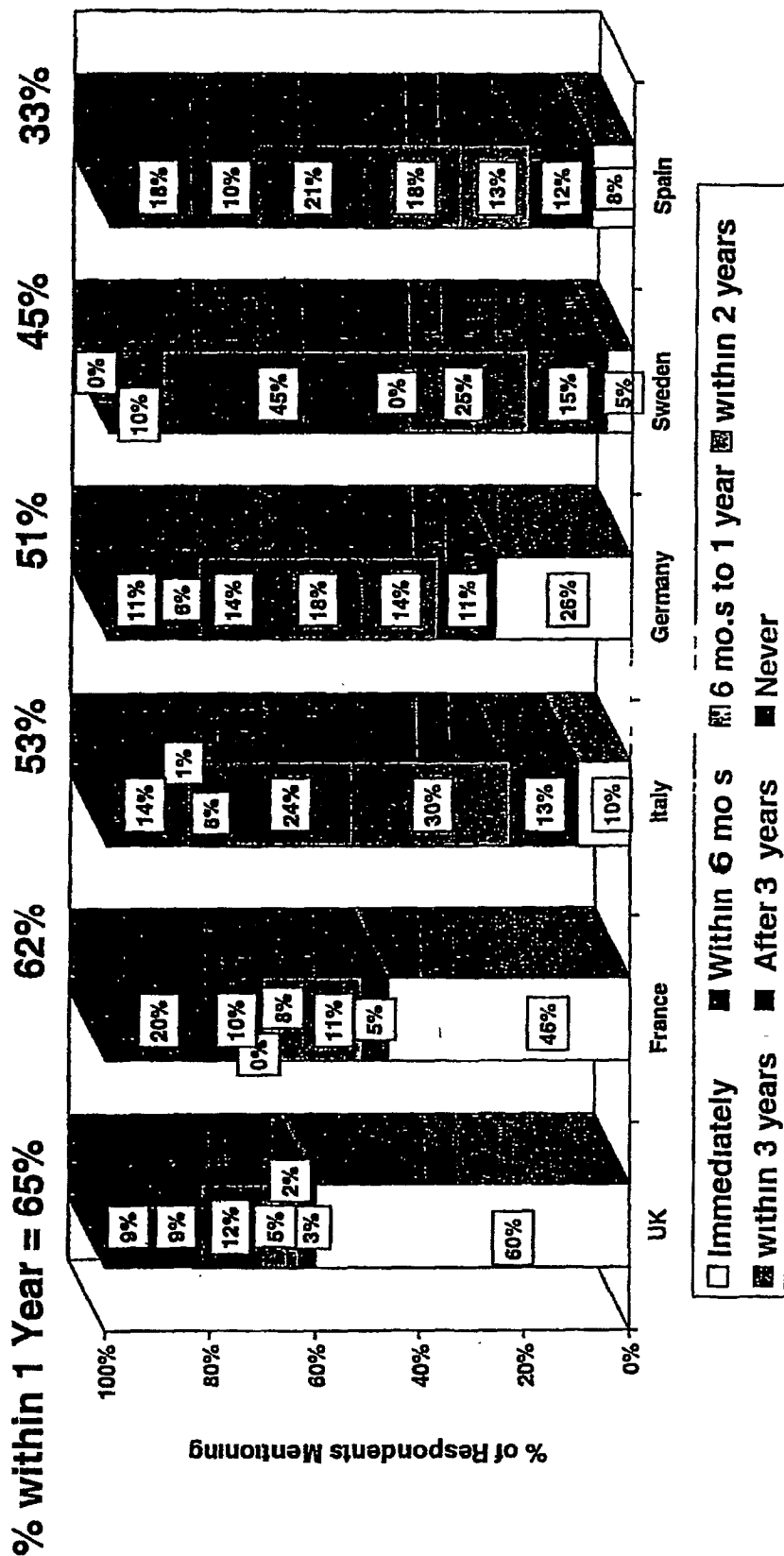


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Spanish and Swedish physicians believe less of their patients will switch after one year than physicians in other countries. French and UK physicians believe more of their patients will switch immediately.

European Firnal

Switching Timing By Country - Physicians -



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Contrary to Spanish doctors' opinions, more Spanish patients than in any other country expect to switch to the reformulated recombinant concentrates by the end of year.

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Switching Timing By Country - Patients -

% within 1 Year = 84%

25%

30%

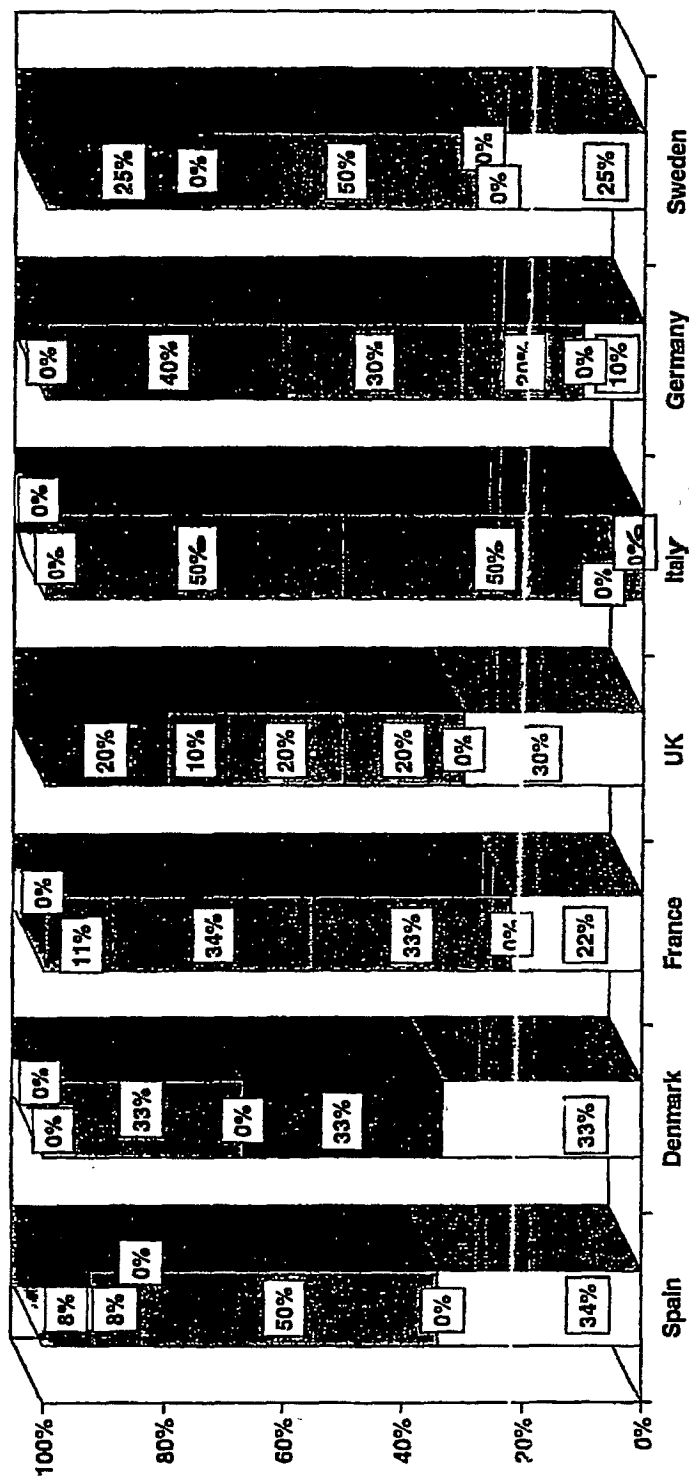
50%

50%

55%

66%

84%



☐ Immediately ☐ Within 6 mo s to 1 year ☒ Within 2 years ☐ After 3 years

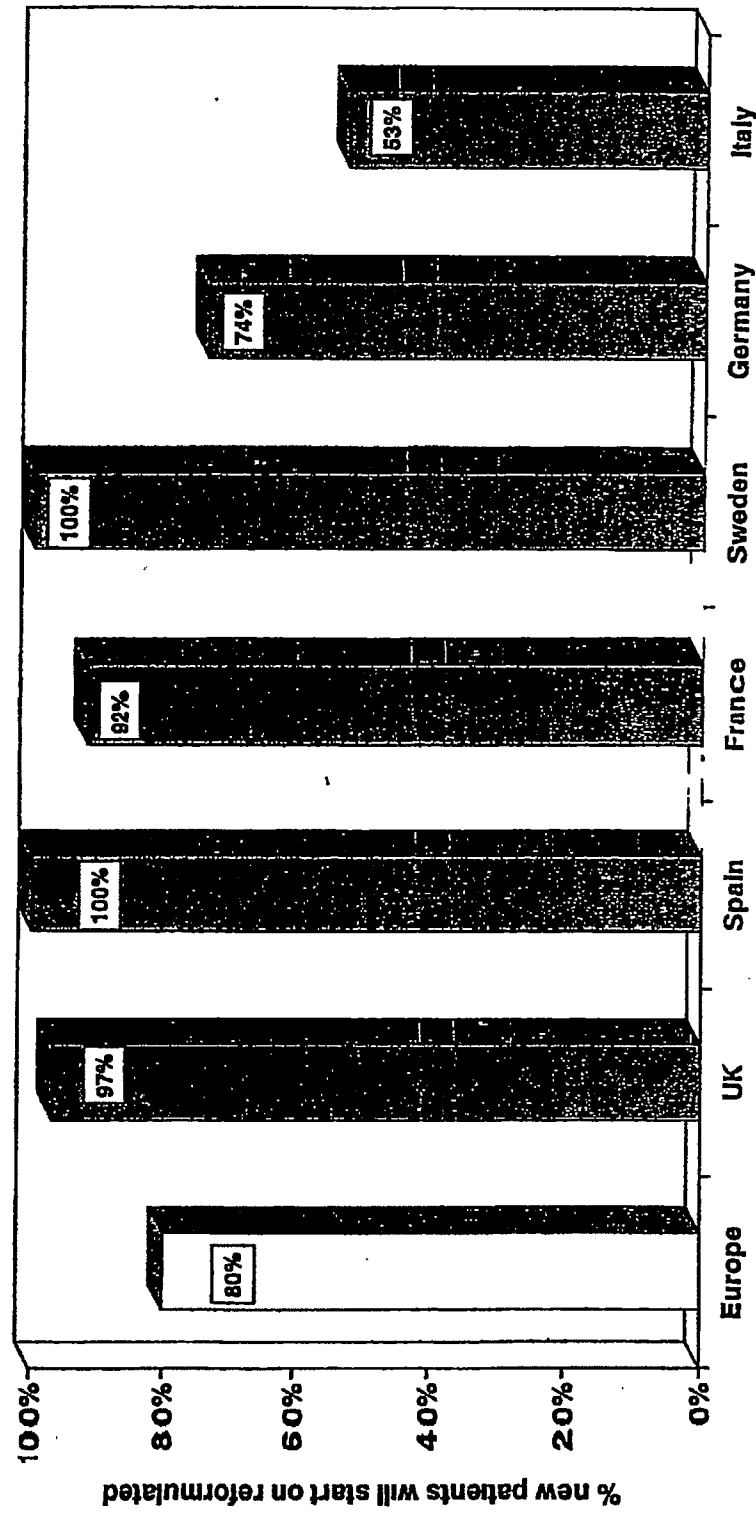


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Findings indicate that physicians in Germany and Italy are less likely to start their newly diagnosed patients on a reformulated Factor VIII product once it becomes available.

European Final

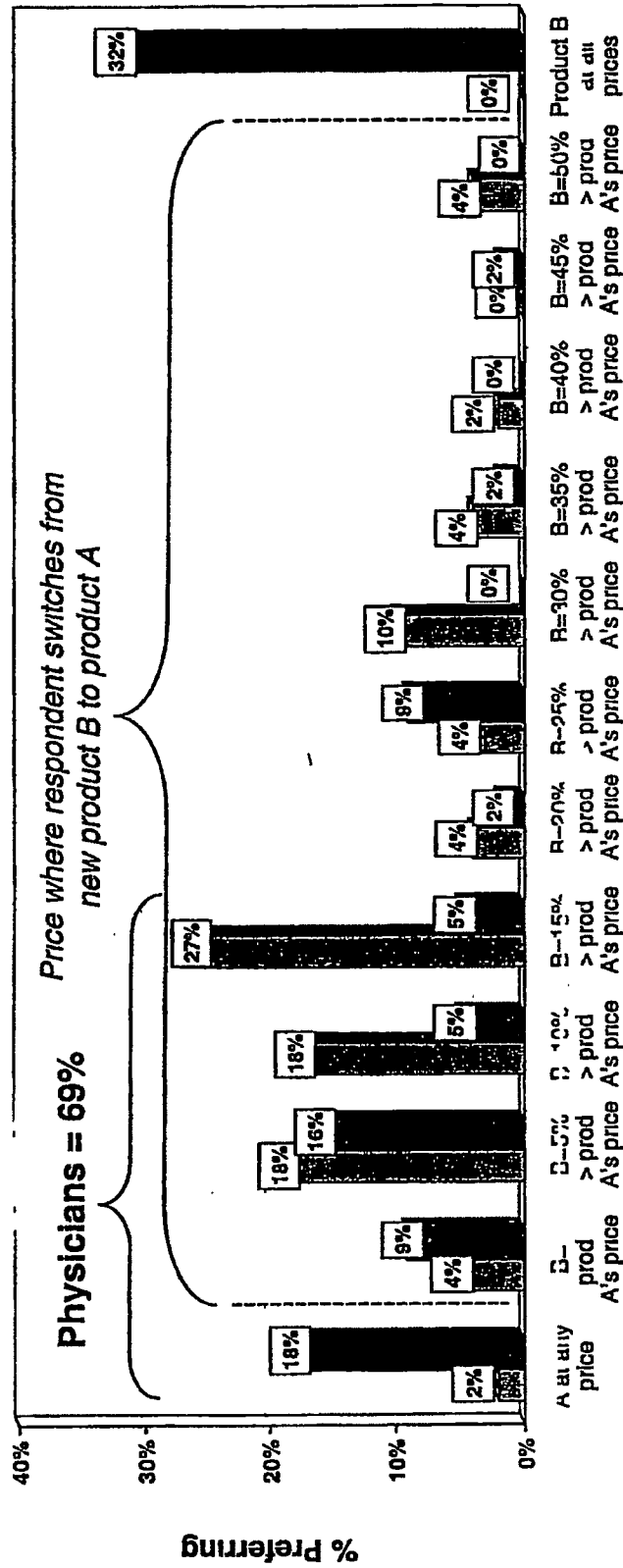
% Newly Diagnosed on Reformulated



Nearly 70% of physicians will choose product A if the price premium for B exceeds 15%. Fifty percent of patients show no price sensitivity as they choose either product A or B regardless of price.

European Final

Pricing Sensitivity



Physicians
Patients

Product A A current recombinant product

Product B A reformulated recombinant product

Comments Brand is the same Product A = today's price/unit Price of Product B increase at 5% intervals from below A's price to more than 150% of A's price



With few exceptions, patients are more emotional in their arguments for increased safety regardless of price.

European Final

Pricing Sensitivity Comments

Physician Comments

"The absence of albumin is not a reason to justify the increase of an already too high price "

- Italian Physician

"If price is too high, problems with financing will surely occur "

- UK Physician

Patient Comments

"Price is absolutely unimportant! Only product safety and efficiency matter "

- German Patient

"I want the safest product for my child, no matter what the cost "

- Italian Patient

Regional Exceptions

Italian and Spanish patients are more price sensitive *"There is already a problem for NIH to allow switch from monoclonal to recombinant Price must be equal to or less than current recombinant products"*

- Spanish Patient

French physicians are the least price sensitive *"The decision is based purely on medical criteria, it is not a question of price "*

- French Physician



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Agenda

Objectives and
Methodology

U.S Findings

European Findings

Summary of Findings

Conclusions and
Recommendations



This summary of findings is based upon the 140 Phase I and II U.S. interviews.

U.S. Summary

Current Product Environment Findings

- 1 Baxter's Recombinate is the most used recombinant FVIII replacement in the U S
- 2 75% of patients in this study have switched products at least one time
- 3 The promise of a safer product via less exposure to human protein was the number one reason for previous switching, physicians provided the greatest influence in a patient's switching decision
- 4 Viral safety is clearly the most important element of safety, as expressed by less exposure to human protein
- 5 Recombinant products are viewed as much safer than plasma derived products
- 6 Baxter is viewed as the most established manufacturer and the one patients feel most comfortable with as a supplier
- 7 Genetics Institute rated as high as Baxter in terms of reputation, even among Recombinate users
- 8 Recombinate users demonstrate a high level of brand/manufacturer loyalty, much higher than Kogenate users
- 9 Patients rated Recombinate over Kogenate in 1 of 4 Key Switching Criteria Inhibitor Incidence
- 10 Professionals view all recombinant products equally in terms of performance
- 11 A greater range and availability of vial sizes and potency strengths is desired by patients



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Key U.S. Findings (continued)

U.S. Summary

New Product Knowledge & Perception Findings

- 1 Refacto is the new product with the highest share of awareness in the U S and the product that more respondents knew about
- 2 Fifty-four percent of patients and 82% of physicians claim to know that human albumin will be removed as a stabilizer for the second generation recombinant products
 - Nearly two-thirds of respondents claimed to know that human/animal protein will be used in manufacturing process of the new products
 - Patients (31%) and physicians (52%) had the least knowledge of the use of a modified gene
- 3 Due to the removal of human albumin as a stabilizer, second generation recombinant products are expected to be safer than the current recombinant products

Pricing Findings

1. Price was mentioned unaided by 25% of respondents as a key switching criteria
- 2 Pricing is not clearly understood by the market, however, the general feeling is that the current pricing of recombinant products is very high
- 3 Seventy percent of patients are highly concerned about lifetime insurance caps, the younger the patient the greater the concern
- 4 Patients are not price sensitive, they will choose the product they want, regardless of price
- 5 Physicians are price sensitive Nearly 80% will not choose the reformulated product if it is priced more than 15% over the current recombinant FVIII concentrates



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Key U.S. Findings (continued)

U.S. Summary

Reformulated Switching & Pricing Findings

- 1 Many physicians and patients could not determine their likelihood to switch without clinical trials proving lower exposure to viral contamination
- 2 Patients show a slight preference for an existing product on the market for 6 years over a reformulated one on the market for 6 months, given the same price and manufacturer
- 3 Physicians and patients both strongly prefer a current product from an established manufacturer over a reformulated one from a new player
- 4 Professionals show no real preference for a reformulated product sold by Bayer over a reformulated one sold by Baxter
- 5 Recombinate users strongly prefer a reformulated product from Baxter over one from Bayer, Kogenate users are much less loyal to Bayer
- 6 Physicians and patients show a preference for a reformulated product sold by Baxter or Bayer over a reformulated one sold by a new player to the market like Genetics Institute
- 7 Approximately 50% of Recombinate users and 80% of Kogenate users will switch within one year of a reformulated product's introduction, older patients are more likely to switch immediately
8. Nearly 90% of physicians claim they will start their newly diagnosed patients on reformulated products once they are introduced



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The summary of these findings is based upon the 150 Phase I and II European interviews.

European Summary

Current Product Environment Findings

- 1 European patients rely heavily on physicians in making their product decisions
- 2 Recombinant FVIII concentrates are the most used type of FVIII replacement. However, in the UK and Italy, patients in our sample used more plasma derived products
- 3 Over 90% of patients in our sample have switched products at least one time
- 4 Viral safety is clearly the most important element of safety. This is followed by 2) less/no human protein and 3) inhibitor incidence
- 5 Recombinant products are viewed as much safer than plasma derived products and receive higher satisfaction ratings
- 6 Baxter and Bayer are viewed similarly as the most established manufacturers and the ones patients feel most comfortable with as suppliers
 - Pharmacia was not as well known, but was rated high by those who knew them
- 7 Recombinate outperformed Kogenate in 3 of 4 Key Switching Criteria: Availability, Inhibitor Incidence and Long-term Clinical Experience, as rated by patients
 - Both were considered equal in the most important criteria, Viral Safety
- 8 Patients expressed a strong need for an improved reconstitution and syringe system
- 9 Patients expressed a high level of dissatisfaction over current vial sizes and potency strengths



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Key European Findings (continued)

European Summary

New Product Knowledge & Perception Findings

- 1 Physicians had a much higher knowledge of the new concentrates being developed than did patients Knowledge of reformulated Kogenate was the highest in both groups
- 2 Physicians clearly were aware of the manufacturers of the reformulated products Patient knowledge of manufacturers was much lower, particularly as to who makes Refacto
- 3 Most patients and all physicians knew that human albumin will be removed as a stabilizer for the second generation recombinant products
 - Patients had little knowledge that human protein will be used in the new products' manufacturing process
 - Patients also had little knowledge of the use of a modified gene
- 5 Due to the removal of human albumin as a stabilizer, second generation recombinant products are viewed as safer than the current recombinant products



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Key European Findings (continued)

European Summary

Reformulated Switching & Pricing Findings

- 1 Many physicians and patients could not determine their likelihood to switch without clinical trials proving lower exposure to viral contamination, and doctor recommendations in the patients' case
- 2 The higher the knowledge of the new product, the higher the likelihood to switch to it
- 3 Physicians (65%) and patients (52%) show a preference for a reformulated product on the market for 6 months over an existing one on the market for 6 years, given the same price and manufacturer
- 4 Physicians and patients both prefer a current product from an established manufacturer over a reformulated one from a new player
- 5 Physicians and patients show no real preference for a reformulated product sold by Bayer over a reformulated one sold by Baxter
- 6 Physicians and patients show a preference for a reformulated product sold by Baxter or Bayer over a reformulated one sold by a new player to the market like Genetics Institute
- 7 Approximately 25% of patients will switch immediately and over 50% will switch within one year of a reformulated product's introduction
- 8 Over 80% of physicians claim they will start their newly diagnosed patients on reformulated products once they are introduced Germany and Italy are exceptions at 74% and 53%, respectively
- 9 Patients are not price sensitive They will choose the product they want, regardless of price
- 10 Physicians are price sensitive Nearly 70% will not choose the reformulated product if it is priced more than 15% over the current recombinant FVIII concentrates



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Agenda

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Key Global Conclusions

Conclusions

- 1 Viral safety is an emotional issue. It is also the number one safety concern and the primary reason patients switch products
- 2 Patients have switched in the past and will switch again if they perceive a safety benefit.
- 3 The current recombinant products are performing well. Physicians and patients need to be convinced of the safety benefits before switching to the new products
- 4 Knowledge of Kogenate SF and Refacto is currently limited in the marketplace
- 5 Genetics Institute in the US and Pharmacia in Europe are not widely known, but are well respected by those who are familiar with them



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Key Global Conclusions (continued)

Conclusions

6. Physicians' will not tolerate a price premium of greater than 15% for the next generation of recombinant products. Patients, however, are not price sensitive.
7. In the U.S., Genetic Institute's Refacto will provide the greatest threat. This is due to Bayer's poor reputation among the patient population.
8. U.S. Recombinate users express high levels of loyalty towards Baxter and low opinions of Bayer. This will help slow the rate of switching between Recombinate and Kogenate SF.
9. In Europe, Bayer's Kogenate SF will provide the greatest threat. This is due to the lack of Genetic Institute's distribution network and name recognition.
10. With proper action by Baxter, switching risk may be limited to those patients stating they will switch immediately, or within the first 6 months.



The findings of this study indicate a large number of drivers that may lead to switching to reformulated recombinant concentrates.

Global Drivers for Switching to Reformulated Recombinants

- Viral safety is a very emotional issue
- Most patients have switched before
- *Improved viral safety* is clearly the top reason to switch
- *Less/No human protein* rated second highest in importance as an element of safety
- *Remaining on a single product* rated lowest as an element of safety
- *Long-term clinical experience* rated low as a key switching attribute
- Physicians and nurses show little differentiation between Baxter and Bayer
- Genetics Institute and Pharmacia are not widely known, but rate high in terms of reputation among those who are familiar with them
- In Europe, patients show low manufacturer and brand awareness



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Conclusions

- A high level of knowledge exists about the reformulated products containing no human albumin as a stabilizer
- Low patient knowledge exists of the reformulated products using human albumin in manufacturing and the use of a modified gene
- Patients and physicians indicate that over 50% of patients will switch within one year
- Professionals indicated that 80% to 90% of their newly diagnosed patients will start on the reformulated products
- Patients are not price sensitive
- Patients desire a greater vial size/potency strength choice and smaller packaging
- Patients desire an improved reconstitution/syringe device

However, barriers also exist that may slow or prevent switching.

Conclusions

Global Barriers Against Switching to Reformulated Recombinants

- U.S. Recombinate users express a high level of loyalty to Baxter, Bayer does not see this from U S Kogenate users
- In the U S Baxter is clearly viewed as the most established manufacturer and the one with which patients are most comfortable
- *Stabilized with human albumin* rated in the lower half of safety element importance
- Physicians do not feel the safety increase with the reformulated products will be as great as the difference in plasma-derived and Recombinants
- Patients currently have limited unaided knowledge of reformulated product names
- U S patients are concerned with lifetime insurance caps
- In Europe, patients will generally wait for a physician's recommendation before switching
- Nearly 40% of Europe patients never switched from plasma derived to recombinants.
- Most respondents can not rate their likelihood to switch without seeing many months of clinical data
- Most respondents prefer a current product from an established manufacturer over a new product from a new manufacturer
- Most respondents prefer a new product from an established manufacturer over a new product from a new manufacturer
- Physicians are sensitive to a 15% price premium or greater
- Less Recombinate users plan to switch within one year than do Kogenate users in the U S



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However, Baxter has the ability to influence many of these drivers and barriers to help slow switching.

| Conclusions | |
|--|---|
| What Can Baxter Influence/Act Upon? | |
| Drivers | Barriers |
| <ul style="list-style-type: none"> Little differentiation is seen between Baxter and Bayer among physicians Low knowledge exists of the reformulated products using human albumin in the manufacturing process Low knowledge exists of the use of a modified gene Patients desire a greater vial size/potency strength choice and smaller packaging Patients desire an improved reconstitution/syringe device | <ul style="list-style-type: none"> U S Recombinate users express a high level of loyalty to Baxter Baxter is clearly viewed as the most established & comfortable manufacturer in the U S Physicians do not feel the safety increase with reformulated products will be as great as the one between plasma-derived and recombinants Physicians and patients need months of clinical data before deciding to switch Physicians and patients prefer a current product from an established maker over a new product from a new manufacturer Physicians are price sensitive U S patients are concerned about lifetime insurance caps |



Global Project Recommendations

Recommendations

Baxter can make several marketing moves to slow the acceptance of Kogenate SF and Refacto, perhaps buying more time than the one year window. Specific strategies include :

- Immediately publicize to physicians, nurses and patients that Baxter is coming out with a second generation product . ***get the word out.***
- Use proactive and defensive marketing tactics to control the speed at which Recombinate users switch to competing reformulated products.. ***act on the drivers and barriers that Baxter can influence.***
- Introduce Recombinate II as soon as possible, ideally within one year of the Kogenate SF and Refacto introductions ***shorten the window of exposure.***
- Work vigorously on a third generation product with the goal of being the first to market....***be the R&D leader.***



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Global Recommendations (continued)

Recommendations

Get the Word Out

- Publicize to physicians and patients that Baxter is coming out with a second generation product and educate everyone on Baxter's new product as early as possible

Proactive Marketing Efforts

- continue to promote Baxter as an established manufacturer of FVIII products and the track record of Recombinate
- continue efforts to improve brand identity and develop brand loyalty for Recombinate
- offer a greater selection of vial sizes, potency strengths and smaller packaging
- develop an innovative reconstitution device and syringe for Recombinate

Defensive Marketing Efforts

- educate about the use of human albumin and the use of a modified gene in new products
- raise questions with physicians about the risks of taking patients off of a single product versus the unsubstantiated reward of an incrementally safer product
- raise questions with physicians about the availability of the newly reformulated concentrates
- raise questions of Genetic Institute's competency with Factor VIII concentrates
- make all efforts to delay the introduction of the reformulated products (i.e. question how Refacto can pass trials in the US using different assays)
- if share is slipping rapidly, price Recombinate 10-15% lower than the reformulated products



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Global Recommendations (continued)

Recommendations

Shorten the Window of Exposure

- Physicians and patients need time to review clinical trials prior to switching to a new product. If Baxter can get its product to market within the one year window, it can potentially avoid losing a large share of its customers.
- Since the second generation products will most likely be viewed as equal, Recombinate II should be accepted as soon as it enters the market since the competing products will have already calmed the fears of this generation of product.

First to Market with 3rd Generation

- A totally protein free FVIII concentrate would be seen as a major step-change improvement in safety.
- The first company to market with a totally human/animal protein free product should be able to capture a very large percentage of switching patients in a one year time frame.
- This would also greatly strengthen the company's reputation and position it as the leader in the Factor VIII replacement market.

This concludes the presentation.
Thank you very much.



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GH000946

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GH000948

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| Francisco Garcia Martinez | Madrid | | | Spain |
| Francisco Javier Maiezourrena | Victoria (Avala) | | | Spain |
| Javier Manzano Delgado | | | | Spain |
| José Manuel Otero Abad | Madrid | | | Spain |
| Juan Pérez Sorie | | | | Spain |
| Juan Terrados Madrazo | Vitoria | | | Spain |
| Julio Chenca del Pino | Leganes | | | Spain |
| Rafael Jandez Conseglari | | | | Spain |
| Bjorn Andersén | Johanneshov | | | Sweden |
| Dr CRM Hay | Manchester Royal Infirmary, Dept of Haematology | | | Sweden |
| Dr Eric Bernorp | Malmö University Hospital, Dept of Coagulation Disorder | | | Sweden |
| Dr Rolf Ljung | Dept O Pediatrics, Malmö Almänna Hospital | | | Sweden |
| Hakan Lagerquist | Fellingsbro | | | Sweden |
| Helen Malmberg | Stockholm | | | Sweden |
| Jorgen Madsen | | | | Sweden |
| Mikael Andersson | Kinnahult | | | Sweden |
| Rickard Falkendahl | Huddinge | | | Sweden |
| Roland Johansson | Lingheem | | | Sweden |
| Benjamin Leuils | Lolcoctor | | | UK |

GH000949

Baxter Hemophilia Study Contact List

| Name | Address | City | State | Country |
|-----------------|---|------|-------|---------|
| Dr G H Toh | Royal Liverpool Hospital | | | UK |
| Dr F G Hill | Birmingham Children's Hospital | | | UK |
| Dr I Hann | Great Ormond Hospital, London | | | UK |
| Dr M Laffan | Hammermith Hospital, London | | | UK |
| Dr M Marks | Royal Hallamshire Hospital, Sheffield | | | UK |
| Dr M Winter | Kent & Canterbury Hospital | | | UK |
| Dr P Giangrande | Churchill Hospital, Oxford Haemophilia Centre | | | UK |
| Dr R Stevens | Royal Manchester Children's Hospital | | | UK |
| Leonard Owens | Bodmin Cornwall | | | UK |
| Liz Rizzuto | Northampton | | | UK |
| Paul Bullen | Cheshire | | | UK |
| Peter Longstaff | New Castle | | | UK |
| Philip Dolen | Glasgow | | | UK |
| Prof G Savidge | St Thomas Hospital, London | | | UK |
| Robert James | London | | | UK |
| Stephen Finney | Poole Dorset | | | UK |
| Sue Nickson | Lancashire | | | UK |
| Terry McMahon | Lancashire | | | UK |

GH000950

2nd Gen. Re VIII

IC Findings

Final Report

**2nd Generation Recombinant Factor VIII
Product Introduction Assessment**

Inter-Continental Findings

Baxter Healthcare Corporation

January 17, 2000



GH000952

Agenda

Objectives and
Methodology

Inter-Continental Findings

Inter-Continental Conclusions and
Recommendations



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SH000953

The primary goal of this project is to provide Baxter with global market intelligence allowing it to successfully position its recombinant Factor VIII product against competitive next-generation products.

Objectives

The primary objectives of this project are:

- Determine the motivators and drivers of switching behavior What will cause and prevent switching from Recombinate to a competitive product?
- Understand the perceptions of decision makers on the next generation recombinant products (Kogenate SF, Refacito and Helixate NexGen) coming to market and how this differs from the previous findings

Specific project objectives include:

- Estimate likelihood of switching from Recombinate to new recombinant products
- Compare findings to those of the initial 1998 study, where applicable

This report represents the views of this sample and is just one piece of a strategic marketing plan. Baxter must balance this data with its corporate directives and other internal, competitive and legislative intelligence.



This project was conducted globally and consisted of two distinct phases.

Methodology

Global Scope

The project was conducted concurrently in the following four global regions.

| <u>North America</u> | <u>Europe</u> | <u>Asia</u> | <u>Inter-Continental</u> |
|---|--|---|--|
| <ul style="list-style-type: none"> • United States • Canada | <ul style="list-style-type: none"> • Germany • France • Italy • Spain • United Kingdom • Denmark • Sweden | <ul style="list-style-type: none"> • Japan | <ul style="list-style-type: none"> • Australia • New Zealand |

This was a blind study, at no time was Baxter mentioned as the sponsor.

Phase I

Phase I was a focused qualitative phase. Information was gathered via in-depth one-on-one and telephone interviews. This information provided the foundation for the quantitative phase of the research effort.

Phase II

This phase was a quantitative effort, with information gathered via telephone interviews. The output of this phase is a detailed understanding of the project objectives. This information will allow Baxter to develop strategies that maximize its market positioning.



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A total of 479 interviews were completed for this study.

Methodology

| Country | Respondent Group | Phase I Interviews Completed | Phase II Interviews Completed | Notes |
|----------------|-------------------|------------------------------|-------------------------------|--|
| U S | Patients | 4 | 100 | * 1 short of target and includes 1 nurse No more physicians agreed to participate |
| | Physicians/Nurses | 7 | 65 | |
| Canada | Physicians | -- | 9* | ** 5 short of target Only 10 physicians were targeted by Baxter and 5 refused New guideline was just introduced by German Hemophilia Society discouraging participation in any unsponsored studies |
| Germany | Patients | 2 | 20 | † 4 short of target However, only 3 hemophilia physicians exist in Denmark 1 declined, 1 not available |
| | Physicians | 1 | 5** | |
| France | Patients | 2 | 20 | †† 1 short of target No more physicians agreed to participate |
| | Physicians | 1 | 10 | |
| Italy | Patients | 2 | 20 | * 6 short of target However, still higher response than expected |
| | Physicians | 1 | 10 | |
| Spain | Patients | -- | 10 | In most countries, Baxter provided Martec a list of physicians to target for this study |
| | Physicians | -- | 5 | |
| United Kingdom | Patients | 2 | 20 | |
| | Physicians | 1 | 10 | |
| Denmark | Patients | -- | 10 | |
| | Physicians | -- | 1† | |
| Sweden | Patients | -- | 10 | |
| | Physicians | -- | 4†† | |
| Japan | Patients | 3 | 54* | |
| Australia | Physicians | 2 | 20 | |
| | Patients | 2 | 20 | |
| New Zealand | Physicians | 1 | 10 | |
| | Patients | -- | 10 | |
| Total | Physicians | -- | 5 | |
| | | 31 | 448 | |

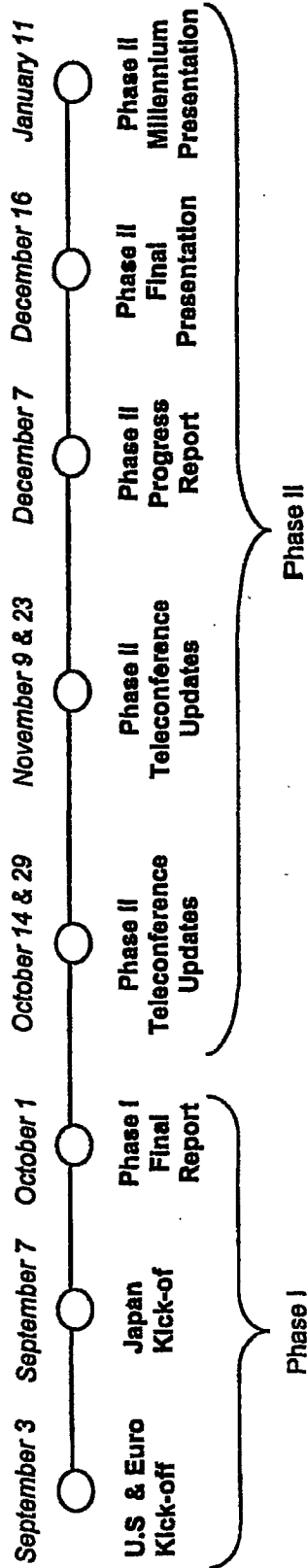


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The project was completed as scheduled.

Methodology

Project Timeline



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Agenda

Objectives and
Methodology

Inter-Continental Findings

Inter-Continental Conclusions and
Recommendations



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All physician and patient quotas were met in the Inter-Continental (I.C.) countries of Australia and New Zealand.

Inter-Continental Findings

I.C. Respondents - Phase II -

Physicians - by Country -

Australia - 10

67%

33%

New Zealand - 5

$n = 15$

Patients - by Country -

Australia - 20

67%

33%

New Zealand - 10

$n = 30$

Patients - by Age -

Age ≥ 18 - 9

30%

70%

Age < 18 - 21

$n = 30$

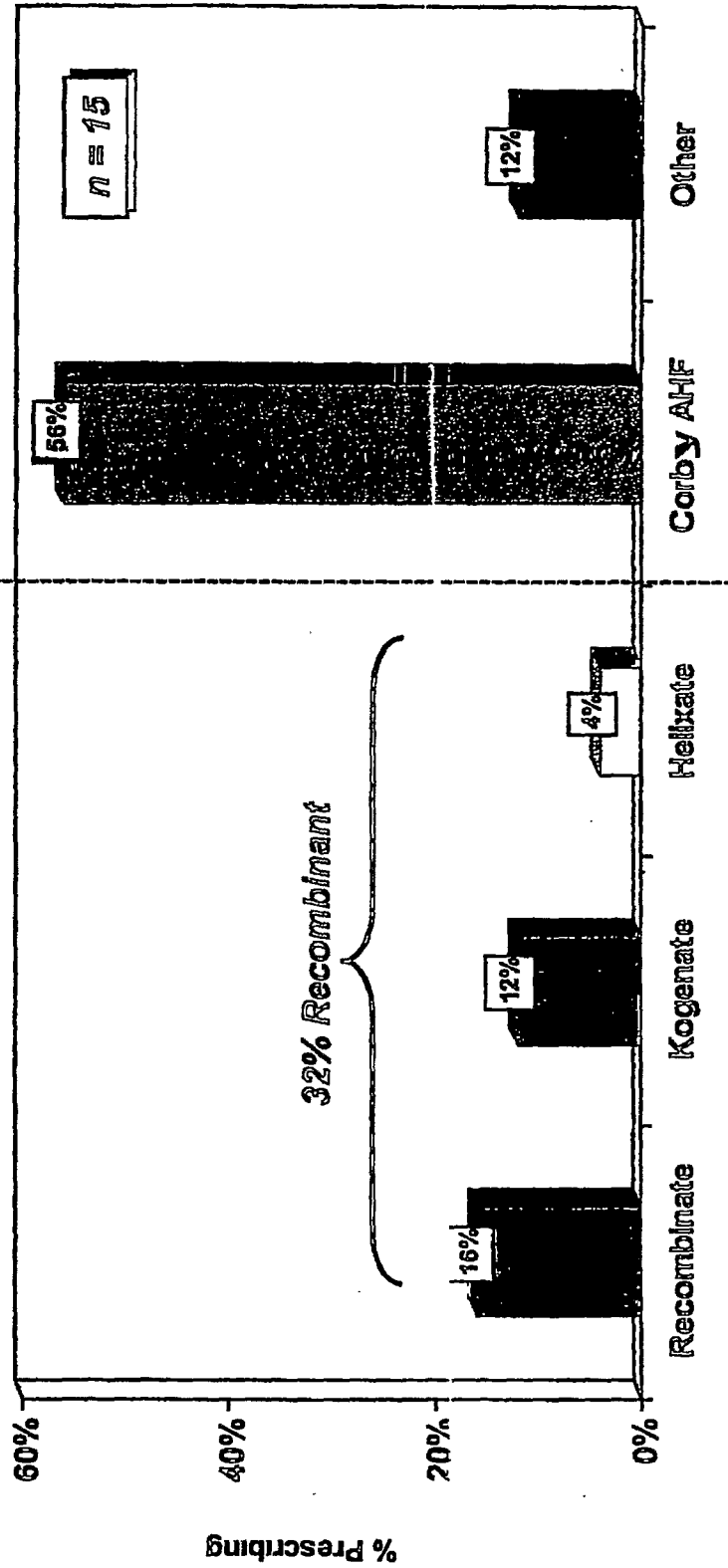


Corby AHF is the most common product used by physicians' patients in Australia and New Zealand.

Inter-Continental Findings

Product Type Used
- Physician -

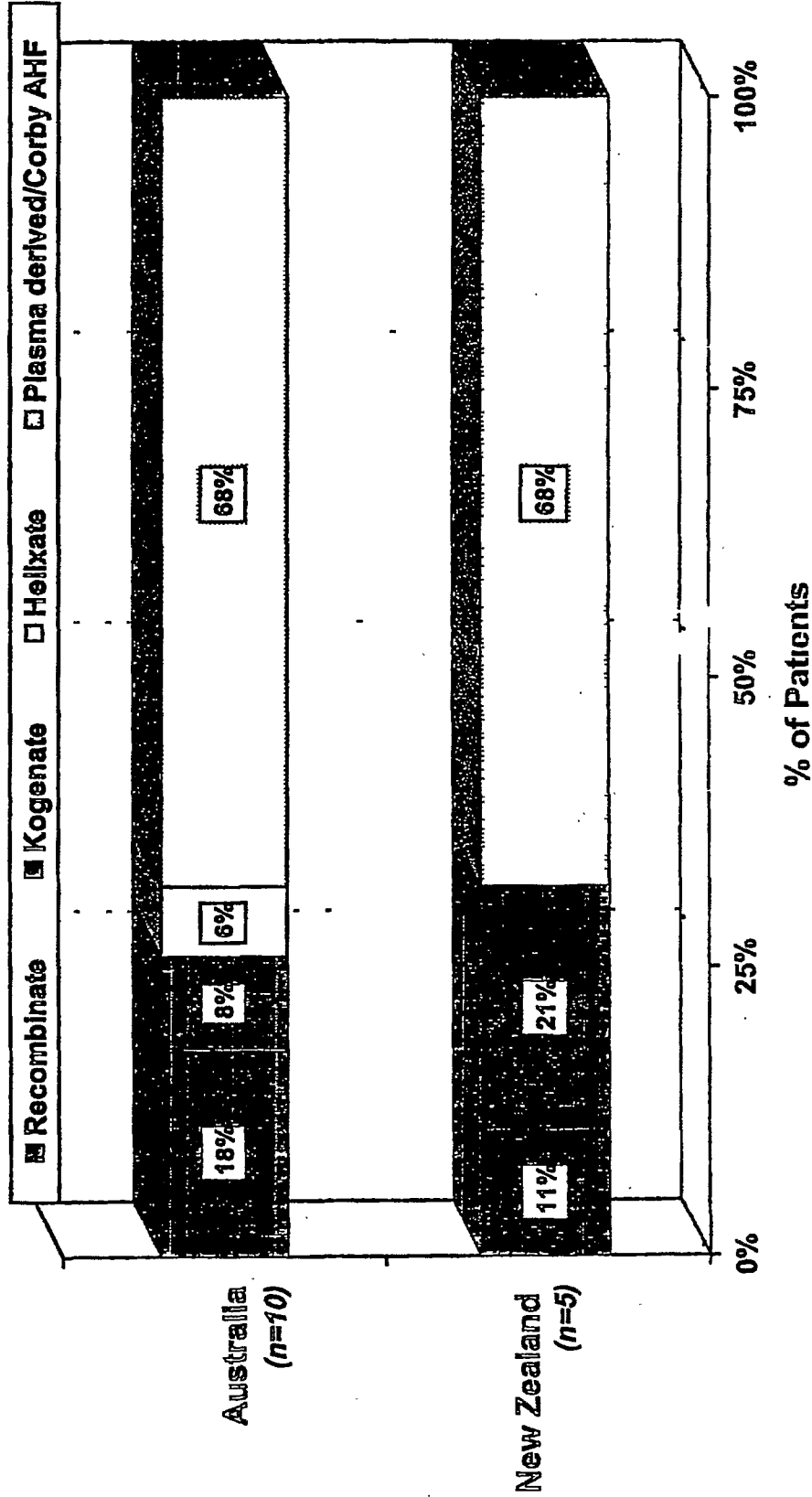
% of Patients on Each Product Type
- I.C. Overall -



In both Inter-Continental countries, recombinant products are used by 32% of physicians' patients.

Inter-Continental Findings

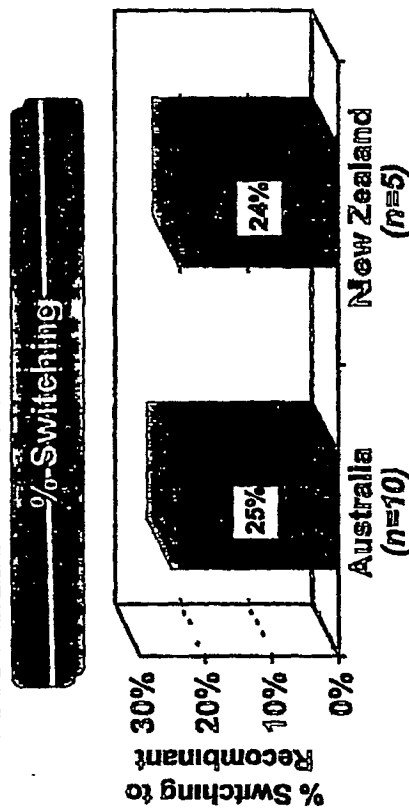
**% of Patients on Each Type of Product
- Physicians -**



On average, only one quarter of I.C. plasma-derived patients have switched to recombinant products. Cost and government policy are the main reason for not switching.

Inter-Continental Findings

% of Physicians' Plasma Derived Patients that Switched to Recombinant



Primary Switching Influences

| | |
|--------------------|-----|
| Physician | 27% |
| Government | 27% |
| Hemophilia Society | 20% |
| Patient/family | 13% |

Primary Reason for Switching

| | |
|-----------------------------------|-----|
| Safer, less exposure to virus | 33% |
| Government edict, all <16 | 13% |
| Price | 7% |
| Family/patient request | 7% |
| Availability | 7% |
| Concern of CJD | 7% |
| Hemophilia Society recommendation | 7% |

Reasons for Not Switching

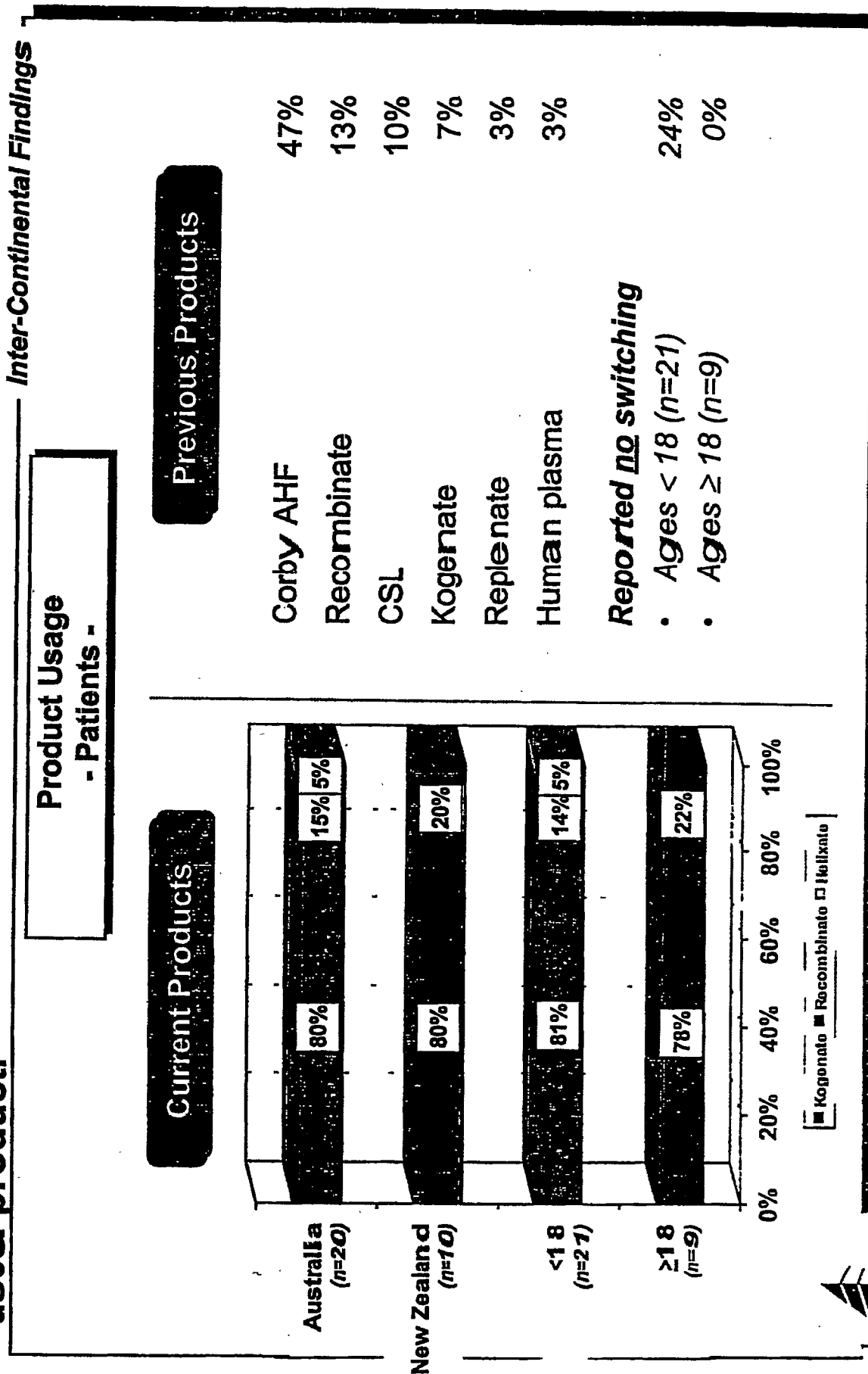
| | |
|---|-----|
| Cost is too high | 53% |
| Government policy/eligibility (adults often ineligible) | 47% |
| Previously exposed to/have H-Hep C/HIV | 33% |
| Satisfied with current product | 13% |



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Kogenate is the most common product among each segment of I.C. patients in this sample. Corby AHF is the most common previously used product.

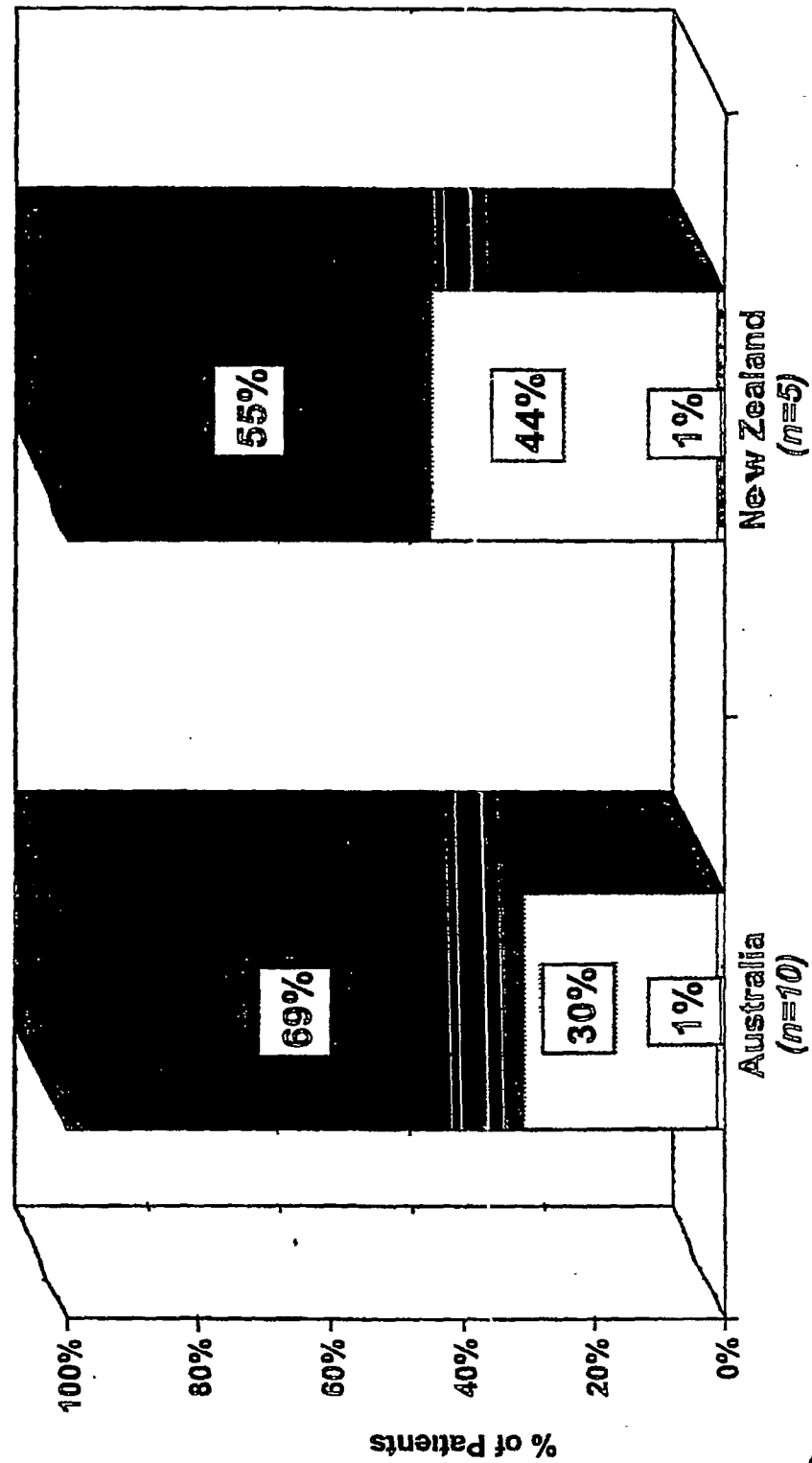


Prophylaxis treatment appears to be more common among New Zealand physicians' recombinant patients.

Inter-Continental Findings

Current Treatment Regimen
Among Recombinant Patients
- I.C. Physicians -

On Demand
Prophylaxis
Immune Tolerance



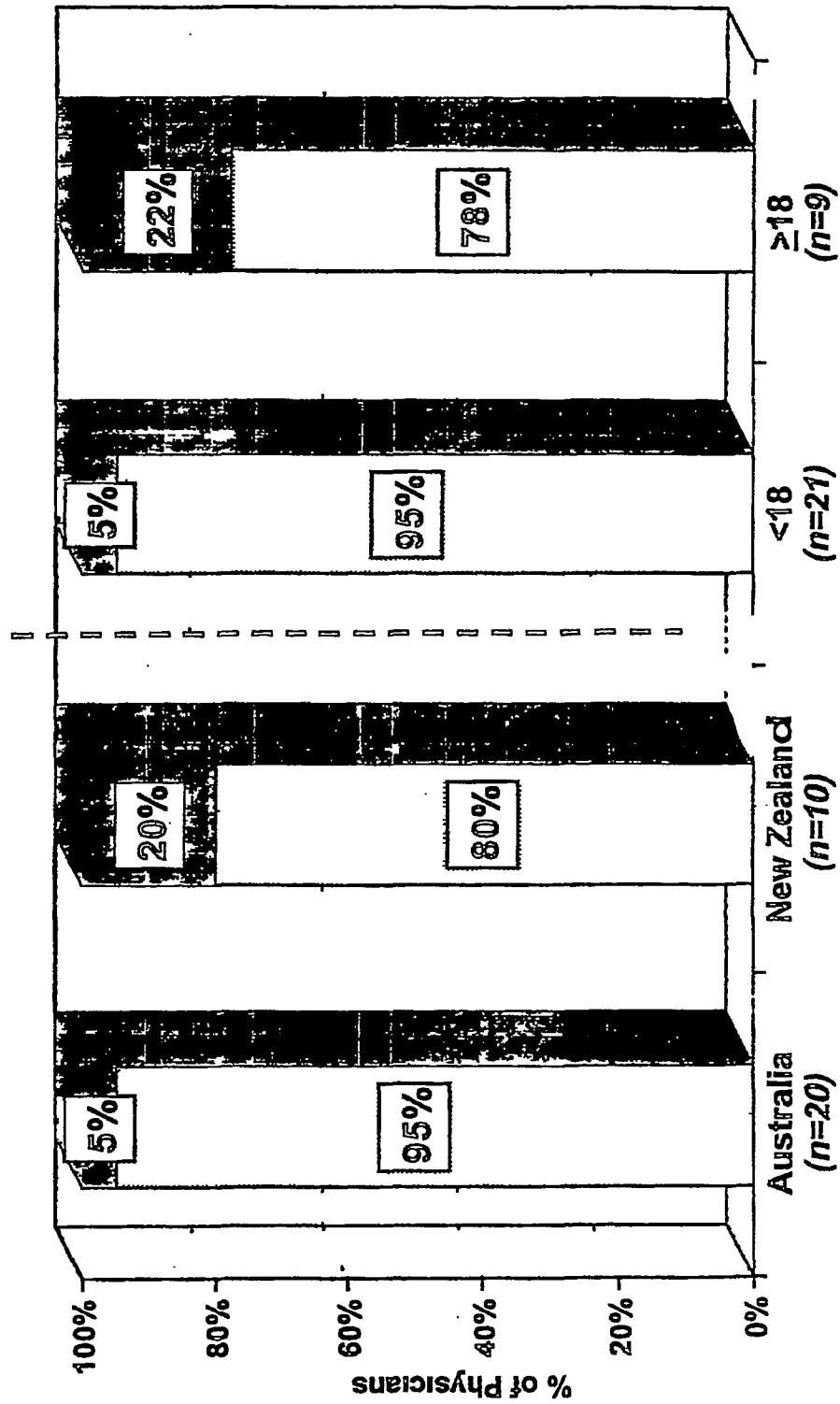
12
GH000964

Prophylaxis is the common method of treatment among this recombinant user sample in Australia and New Zealand. This is likely skewed due a sample consisting of recombinant users mostly under 18 years old.

Inter-Continental Findings

Current Treatment Regimen - I.C. Patients -

■ On Demand
□ Prophylaxis



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Less Viral Risk, Ease of Use and Ease of Mixing are current likes of physicians.

Inter-Continental Findings

Current Recombinant Product "Likes" - I.C. Physicians -

Australia

Less viral risk 80%

Less exposure to human protein 50%

Improved efficacy 20%

Very pure product 10%

n=10

New Zealand

Easy to use 60%

Ease of mixing/Readily soluble 60%

Improved efficacy 40%

Less viral risk 20%

Less adverse events 20%

Less exposure to human protein 20%

More concentrated/higher potency 20%

Good history/track record 20%

n=5



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GH000966

I.C. patients mentioned several likes with their current products.

Inter-Continental Findings

Current Recombinant Product "Likes" - I.C. Patients -

Australia

| | |
|---|------------|
| Less viral risk | 40% |
| Easy to use | 40% |
| More concentrated/higher potency | 25% |
| Less exposure to human protein | 20% |
| Ease of mixing | 20% |
| Treatment process | 20% |
| Improved efficacy | 10% |
| Smaller packaging good for storage | 5% |
| No refrigeration storage | 5% |

n=20

New Zealand

| | |
|---|------------|
| Less viral risk | 50% |
| More concentrated/higher potency | 50% |
| Less exposure to human protein | 50% |
| Easy to use | 40% |
| Size of product good for storage | 30% |
| Ease of mixing | 20% |
| Treatment process | 10% |
| Improved efficacy | 10% |

n=10



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I.C. physicians mentioned a variety of dislikes, with still risk of viral infection and high price mentioned most.

Inter-Continental Findings

Current Recombinant Product "Dislikes"
- I.C. Physicians -

Australia

Still risk of viral infection 70%
Still contains human albumin 40%
High price 30%
Requires IV administration/ treatment process 20%
Poor range of potencies 20%
Inhibitor incidence 10%
Infusion volume too large 10%

n=10

New Zealand

Still risk of viral infection 60%
High price 40%
Inhibitor incidence 40%
Still contains human albumin 20%
Requires IV administration 20%
Concern of prions 20%
Concern of CJD 20%
Short product half-life 20%

n=5



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GH000968

Exposed to human protein is the top dislike I.C. patients have with their current recombinant products.

Inter-Continental Findings

**Current Recombinant Product "Dislikes"
- I.C. Patients -**

Australia

| | |
|---------------------------------------|------------|
| Still exposed to human protein | 35% |
| Limited availability | 15% |
| Still risk of viral infection | 15% |
| Difficult treatment process | 15% |
| Adverse events | 5% |
| Limited choice of potency sizes | 5% |
| Short product half life | 5% |
| Animal proteins in mfg process | 5% |
| None mentioned | 15% |

n=17

New Zealand

| | |
|---------------------------------------|------------|
| Still exposed to human protein | 40% |
| Difficult treatment process | 30% |
| Requires IV administration | 20% |
| Adverse events | 20% |
| Concern of CJD | 20% |
| Limited choice of potency sizes | 10% |
| Limited availability | 10% |

n=10



MARION

Kogenate receives the highest satisfaction ratings among I.C. physicians and patients.

